

JPRS 77310

4 February 1981

China Report

AGRICULTURE

No. 121



FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Indexes to this report (by keyword, author, personal names, title and series) are available from Bell & Howell, Old Mansfield Road, Wooster, Ohio 44691.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

4 February 1981

CHINA REPORT

AGRICULTURE

No. 121

CONTENTS

I. GENERAL INFORMATION

National

PRC Overfulfills 1980 Grain Purchase Plan (XINHUA Domestic Service, 19 Jan 81)	1
'RENMEN RIBAO' on Preparations for Bumper Harvest (RENMEN RIBAO, 17 Jan 81)	2
China Makes Headway in Crop Seeds Production (XINHUA Domestic Service, 24 Jan 81)	5
Problems Follow Implementation of Responsibility System (RENMEN RIBAO, 30 Nov 80)	6
Heavy Burden on Peasants, by Ji Dongyu Shortage of Threshers, by Liao Kiachang	
Native, Sideline Products Bases Established (RENMEN RIBAO, 30 Nov 80)	9
Briefs	
Conference on Herbicides	11
1980 Cotton Purchase	11

Anhui

Briefs	
Farm Mechanization	12
Peasants Income	12
Agricultural Cadres	12
Agricultural Output	12
Prefectural Livestock-Breeding	13
Anhui Agriculture	13
Afforestation Meeting	13

Fujian

Depletion of Forest Resources in Fujian Deplored (Ni Songmao, et al; GUANGMING RIBAO, 5 Nov 80)	14
--	----

Briefs

Forest Conference	16
Grain Procurement	16

Guangdong

Expansion of Farm Machinery Production Discussed (Wang Shanrong; NANFANG RIBAO, 17 Oct 80)	17
---	----

Measures Adopted To Increase Edible Oil Procurement (NANFANG RIBAO, 29 Oct 80)	19
---	----

New Policies Stimulate Freshwater Fish Raising (ZHONGGUO XINWEN, 20 Oct 80)	20
--	----

Increased Rice Output Due to Specialized Contracts (Huang Nian, Zhang Ruxi; NANFANG RIBAO, 29 Oct 80)	21
--	----

New Varieties, Other Achievements Recounted (NANFANG RIBAO, 7 Oct 80)	23
--	----

Readjustment of Shantou Prefecture Agriculture Discussed (Chen Dehui, et al; NANFANG RIBAO, 19 Oct 80)	24
---	----

Briefs

Shrimp Base	27
Zhongshan County Sugarcane	27
Peanut Procurement	28

Guangxi

Briefs

Scientific Farming Conference	29
-------------------------------	----

Guizhou

Briefs

Guizhou Afforestation	30
Rice Production	30

Hebei

Beijing's Water Conservancy Construction Discussed (RENMIN RIBAO, 4 Nov 80)	31
--	----

Briefs

Hebei Agriculture	34
-------------------	----

Heilongjiang

Peasants Raise More Livestock (RENMIN RIBAO, 7 Nov 80)	35
---	----

Briefs

Agricultural Production	36
Wucheng County Paddy Rice	36
Farm Mechanization	36

Jiangsu

Water Resources in Jiangsu Discussed (Wu Weimin; XINHUA RIBAO, 12 Oct 80)	37
--	----

Briefs

Land Reclamation Units	38
Seed Bases	38
Antidrought Activities	38
Field Management	38

Jilin

Briefs

Agricultural, Livestock Harvest	39
Hog Procurement	39
Zhenlai County Output	39

Liaoning

'XINHUA' Feature Hails Pig Farmer's Initiative (XINHUA, 21 Jan 81)	40
---	----

Briefs

Municipal Grain	43
County Grain	43
Tieling Prefecture Grain Output	43

Nei Monggol

Commune Members' Living Conditions Investigated (Hohhot Nei Monggol Regional Service, 18 Jan 81)	44
---	----

Livestock Breeding Situation Investigated (Hohhot Nei Monggol Regional Service, 17 Jan 81)	45
---	----

Briefs

Grain Procurement	46
Farm Output	47

Qinghai		
Briefs		
Emergency Circular		48
Shaanxi		
Briefs		
Shaanxi Agriculture		49
Cocoon Production		49
Shandong		
Farm Machinery Bureau Directors Conference		
(Jinan Shandong Provincial Service, 1 Jan 81)		50
Alkaline Soil Improved, Turned Into Good Fields		
(Sun Mingzhen; RENMIN RIBAO, 7 Nov 80)		51
Briefs		
Shandong Income		52
Grain Control		52
Cotton Output		52
Grain Output		52
Shandong Animal Husbandry		53
Shanghai		
Briefs		
Antiflood Work Meeting		54
Shanxi		
Briefs		
Linseed Area		55
Shanxi Agricultural Research		55
Shanxi Pork Production		55
Sichuan		
Briefs		
Sichuan Winter Crops		56
Tianjin		
New Rice, Corn Strains Bred in Tianjin		
(TIANJIN RIBAO, 14 Oct 80)		57
Briefs		
Tianjin County Grain Procurement		59

Xinjiang

Briefs

Xinjiang Agricultural Meeting	60
Draught Animal Marketing	60
Abnormal Climate	60
Rural Work Conference	60
Soil Surveys	61

Yunnan

Briefs

Yunnan Wine	62
Animal Husbandry	62

Zhejiang

Plant Protection Companies Help Control Pests, Diseases (Zhou Shoujin; GUANGMING RIBAO, 4 Nov 80)	63
Hangzhou Bay Fishing Industry Hard Hit by Polluted Industrial Waste Water (GUANGMING RIBAO, 22 Oct 80)	64
Labor Shortages in Communes Debated (ZHEJIANG RIBAO, 19 Nov 80)	66

II. PUBLICATIONS

Table of Contents of 'RURAL SCIENTIFIC EXPERIMENTS' No 8, 1980 (NONGCUN KEXUE SHIYAN [RURAL SCIENTIFIC EXPERIMENTS], No 8, 1980)	70
--	----

ABSTRACTS

PLANT PROTECTION

ZHIWU BAOHU [PLANT PROTECTION], No 1, Feb 80, No 2, Apr 80, No 3, Jun 80, No 4, Aug 80, No 5, Oct 80	74
---	----

1. GENERAL INFORMATION

PRC OVERFULFILLS 1980 GRAIN PURCHASE PLAN

OW192153 Beijing XINHUA Domestic Service in Chinese 1230 GMT 19 Jan 81

[Text] Beijing, 19 Jan (XINHUA)--As of 15 January 1981, China had overfulfilled the 1980 grain purchase plan. Statistics show that the grain purchased and placed in storage totalled 104.3 percent of the planned target.

At present, 19 provinces, municipalities and autonomous regions have either fulfilled or overfulfilled their grain purchase quotas. They are Sichuan, Henan, Guangdong, Guangxi, Jiangsu, Anhui, Jiangxi, Shandong, Liaoning, Jilin, Heilongjiang, Shaanxi, Qinghai, Ningxia, Xinjiang, Beijing, Tianjin, Hebei and Shanxi.

According to the Ministry of Food, the 1980 grain harvests in China were uneven. Relatively less grain was purchased in some regions that were plagued by relatively more serious natural disasters. As a whole, the 1980 grain purchase in China was smaller than that of 1979. The party committees and people's governments in various localities made proper arrangements for the livelihood of commune members in natural calamity-stricken regions. At the same time, they encouraged regions with good harvests to sell grain above their quotas, but they made sure the grain purchase was not excessive. The grain purchased in Liaoning, Guangdong, Guangxi and Henan was 2 billion jin above their combined quotas.

So far, some provinces, municipalities and autonomous regions have not fulfilled their grain purchase quotas. In the provinces, municipalities and autonomous regions that have fulfilled their quotas, there are some prefectures, counties, communes and production brigades that have not yet fulfilled their quotas. Efforts are being made to accelerate grain purchases in those counties and production brigades. In areas where grain purchase quotas have been fulfilled and commune members have more surplus grain to sell, local grain departments are actively buying the surplus grain at negotiated price.

CSO: 4007

'RENMIN RIBAO' ON PREPARATIONS FOR BUMPER HARVEST

HK221349 Beijing RENMIN RIBAO in Chinese 17 Jan 81 p 2

[Commentator's article: "Make Full Preparations for Bumper Agricultural Harvest"]

[Text] Since the 3d Plenary session of the 11th CCP Central Committee, a very great change has taken place in the rural areas and the situation is extremely encouraging. To further develop this situation, we must continue to bring into play the enthusiasm of the peasants, concentrate forces to strive for a bumper agricultural harvest this year and secure all-round development in agriculture, forestry, animal husbandry, sideline production and fishery. These are the important ingredients and conditions for further readjusting the national economy. To get a bumper harvest this year, we must make adequate preparations before the busy spring plowing season.

First, it is necessary to activate political and ideological work and show the grass-roots cadres and masses the encouraging situation resulting from implementing the party's policies so as to strengthen their confidence in changing their outlook and advancing on the road to prosperity. In view of the misgivings among a few people that the policy may "change," it is necessary to explain that the policies of the 3d Plenary session of the 11th CCP Central Committee will be firmly implemented to activate and invigorate the rural economy. This will encourage the peasants to make greater contributions while striving to fulfill the economic readjustment tasks.

Second, it is necessary to further strengthen and perfect the agricultural production responsibility system. In the past 2 years, all kinds of production responsibility systems have been restored and established. These have played a tremendous role in implementing the policy of to each according to his ability and to each according to his work, arousing the socialist enthusiasm of the peasants and promoting the development of agricultural production. Now, the various localities are summing up their experiences in accordance with the guidelines of the party Central Committee's documents. This is necessary. All responsibility systems have to be tested in practice before they can be perfected and all kinds of ideological and actual problems will inevitably appear requiring unity in thinking and appropriate solution. The key to perfection is to adhere to the principle of suiting measures to local conditions and providing guidance according to different fields and to fully respect the decision-making power of communes and brigades. Some units have practiced the system of signing contracts for specialized production and calculating payments according to output and of contracting a small portion of framework to peasants with fixed production quotas according to which work points will be recorded. These units should

pay attention to reinforcing and improving the systems and introducing scientific and reasonable methods for dividing labor and jobs, fixing production quotas and calculating payments for labor. Communes and brigades which still have to consolidate their collective economy and perfect their operation and management should devote special efforts to improving and establishing responsibility systems suited to local conditions so as to spur the expansion of the collective economy and increase the peasants' income. Some production units in remote and impoverished areas are practicing the system of assigning farm output quotas or farmwork to households. As long as their form of production management suits actual local conditions, helps the development of production and is liked by the masses, it should be finalized and attention must be paid to actual results and material benefits. In short, all these should be decided by the masses themselves and we can only give realistic guidance. In no way should we demand uniformity in everything.

Third, it is necessary to straighten out our financial affairs in a planned way step by step in connection with the yearend distribution. It has become more important to properly handle the collective economy's financial affairs for the sake of increasing production and income. At present, there is some confusion in financial management in some communes and brigades. The property of the collective is not properly defined, there is lack of clarity on the exact amount of goods in stock; there is misappropriation of funds and failure to collect debts and overdrafts in time. If this condition is not promptly sorted and straightened out, it will be impossible to truly implement the principle of to each according to his work or put into effect compensating the diligent labor of the commune members at the yearend distribution. This will inevitably have an effect on the future development of agricultural production. Therefore, all localities should seriously view the work of straightening out financial management as important and make good use of the period for yearend distribution to earnestly sort out the property, materials and funds of the collective and itemize them in official records to be made public to all. It is also necessary at the same time to institute and perfect the accounting system, clarify all entries, straighten out assets and liabilities and institute strict procedures for spending and receiving money as well as settling accounts. It is necessary to encourage all financial personnel to become "penny pinchers" and to waste no money. The money saved can be used for developing collective production and increasing the income of commune members. Serious financial matters should be discussed by the masses in a democratic way and a financial system should be set up accordingly. The purpose of straightening out financial affairs is to constantly raise the managerial level, eliminate defects, stop waste, increase production funds and insure the availability of cash during distribution. Agricultural and financial departments should provide necessary vocational guidance to cadres and financial and accounting personnel of communes and brigades and help them master the skills of looking after the "family" and handling monetary affairs. As for the handful of problems concerning corruption and taking more than one is entitled to discovered in the process of straightening out financial matters, we must deal with the serious cases in an appropriate manner. However, we must be careful not to make people the target of criticism or attack as was the case in previous movements.

Fourth, it is necessary to mobilize the masses to make plans for this year's agricultural production. The various localities have scored marked results in readjusting the agricultural structure in accordance with the principle of insuring the all-round development of agriculture, forestry, animal husbandry, sideline production and fishery. This year, readjustment should be continued. Continuous efforts

should be made to correct the ideas which have resulted in one-sided stress on grain production and in the lack of enthusiasm in making readjustments. It is also necessary to prevent the tendency of ignoring grain production, which should continue to enjoy top priority. In making production plans, it is necessary to maintain the principle of insuring the all-round development of agriculture, forestry, animal husbandry, sideline production and fishery and see to it that grain output increases steadily. All production units should strive to fulfill the grain procurement tasks set by the state and satisfy the need for grain as a result of the increasing population and the improved livelihood of the people in the respective units. They should also try to maintain a certain amount of grain in reserve. In making production plans, it is necessary to respect the production teams' decisionmaking power and truly follow the mass line. At present, many places have refrained from passing on mandatory plans to grassroots units. They merely present their views for reference. This has helped production teams to proceed from realities and arrange their production in accordance with the local situation. At the same time, it is necessary to educate the peasants to consciously accept the guidance of the state plan and to consider the interests of the state, the collective and the individual producers simultaneously. When the masses understand the overall situation and the need for the state regarding grain and industrial crops in the readjustment of the national economy, they will correctly draw up a production plan in accordance with the needs and actual conditions of the state and create favorable conditions for a bumper harvest this year.

CSO: 4007

CHINA MAKES HEADWAY IN CROP SEEDS PRODUCTION

OW250046 Beijing XINHUA Domestic Service in Chinese 0233 GMT 24 Jan 81

[Excerpts] Beijing, 24 Jan (XINHUA)--More than 1,900 seeds companies were set up in China's provinces, prefectures and counties by the end of 1980, it was learned from the China Seeds Corporation by a XINHUA correspondent. Last year these companies supplied the communes and production brigades of the country with over 3.7 billion jin of fine seeds or more than 10 percent of all the farm crop seeds used in the country. Most of the above total were seeds of hybrid species.

The China Seeds Corporation was established in 1978. Experimental work on unifying seeds supply--with the county as the basic organization--also started at the same time. This was to professionalize the production of seeds, standardize the quality of their strains for various areas and mechanize their processing implements. Twelve counties, including Qinggang of Heilongjiang and Zhengding of Habei, were selected for that purpose. The country's seed work has grown quickly over the past 2 years and more, thanks to care and support from government agencies at various levels.

The China Seeds Corporation has set up nearly 90 production bases throughout the country from which they provide various localities with seeds of such grain crops as rice, wheat, corn, sorghum, soybeans and potatoes as well as such cash crops as cotton, rape, peanuts, sunflowers, vegetables and green manure crops.

In the past 2 years, the above mentioned 12 counties have sorted more than 60 million jin of seeds annually or more than a quarter of the total amount of the required seeds each year. The country's some 3,100 seeds sorters processed more than 1 billion jin of fine strain seeds last year.

In 1980 the country's total acreage of hybrid rice paddies was 79 million mu, which tops the figure of the year before by 3 million. This acreage figure may reach the mark of 87 million mu in 1981 because of the various seeds companies' progress last year. The 1980 acreage of hybrid corn in the country was 214 million mu or 70 percent of the country's total corn acreage. The figure represented an increase of 10 million mu over that of 1979. Last year the country planted 25 million mu of hybrid sorghum, which was one half of the country's total sorghum acreage for that year.

CSO: 4007

PROBLEMS FOLLOW IMPLEMENTATION OF RESPONSIBILITY SYSTEM

Heavy Burden on Peasants

Beijing RENMIN RIBAO in Chinese 30 Nov 80 p 3

[Article by Ji Dongyu (0679 2639 5148) of Xinyang Commune, Sheyang County, Jiangsu Province: "Those Units that Asked Production Teams for Money, Please Give a Helping Hand"]

[Text] Peasants have benefited substantially from the implementation of the system of responsibility for production and from the policy aimed at adjusting the prices of agricultural and sideline products. As a result, the cash income on the accounts of production teams is now on the rise. But in some areas, the apportionment of expenses is so excessive that very little of the money earned by the masses is left for them following numerous apportionment and deductions. The credit cooperative of the Xinyang Business Office recently conducted a survey in 10 production teams. The survey showed that the average total apportionment of expenses for each team was 2,137 yuan, which breaks down as follows: 596 yuan for wages of nonproductive personnel and for broadcasting fees; 550 yuan for capital construction expenses incurred in brigades, schools and health care stations; and 991 yuan for various types of subsidy. In the No 3 production team of Qianjin Brigade, the estimated cash income for this year is 29,184 yuan. As of now, the amount of expenditure apportioned to this team is 5,486 yuan, which breaks down this way: 1,000 yuan as fees for health care stations, 563 yuan as broadcasting fees, 33 yuan as expenses for entertaining people engaged in farmland irrigation task during drought, 525 yuan as cooperative medical service fees, 130 yuan as veterinary service fees, 300 yuan as part of wages for teachers of private schools and for barefoot doctors, 2,320 yuan for tearing down, relocating or building methane gas fermentation pits, 250 yuan as brigade management fees (subsidy for cadres' work points is not included), 215 yuan for aids to poor households, and 150 yuan as payment of interests on loans. This outlay cost, on the average, each household 65.88 yuan and each person 15.54 yuan. This production team must also pay a debt of 3,747 yuan, an outstanding loan of 14,672 yuan, and 1,476 yuan in agricultural taxes—totaling 19,894 yuan in these three items. In other words, its total apportionment of expenditure comes to 25,380 yuan, accounting for 86.97 percent of its total cash income. This expenditure costs each of its households 305.78 yuan or each of its commune members 71.90 yuan on the average. According to its accounts, this production

team is still short of 1,370 yuan to pay off the work points of its commune members.

As the yearend distribution for this year is drawing near, an important issue that commands the attention of leadership at all levels is how to constantly increase the personal income of commune members as production increases. The liberalization of our economic policy has encouraged the masses to work harder than ever. They hope that their hard labor in the past year will prove fruitful after autumn. How would they feel when they see money that is supposed to be theirs fail to enter their own pockets? Of course, production teams should make some contributions to some funds, but this must be controlled. Capital construction should be undertaken according to one's capability, and the apportionment of such expenditure must be made under unified planning. Moreover such apportionment must be discussed by the masses and approved by departments concerned. Credit units must adopt a spirit of reality and take into account the ability of production teams to repay when working out loan repayment schedules. Expenditures for nonproductive purposes must be reduced. Food and drink expenses for entertaining visitors must not be borne by the masses. In short, we hope that all units and departments that stretched out their hands to ask production teams for funds will give them a helping hand.

Shortage of Threshers

Beijing RENMIN RIBAO in Chinese 30 Nov 80 p 3

[Article by Liao Kaichang (1675 7030 2490) of Guanzhu Commune, Dianhai County, Guangdong Province: "Peasants demand the Production of Small, Cheap Threshers"]

[Text] During the busy autumn harvesting season, I accompanied the leading comrades of communes in their visits to more than 20 production brigades. During the trips, I noticed that the implementation of the new system of production responsibility has created new problems for peasants whose households have become individual production units. In the past, when production teams had to thresh rice, they worked as units on relatively large threshing ground and used huge threshers and shellers to solve their problems. But today, following the implementation of the production responsibility system, some areas regard the individual households as individual units for the harvesting and threshing of rice. Some households threshed and sunned their rice in the courtyards or at the front doors of their homes. Others improvised threshing ground of several square meters in size at the edge or on the slope of mountains. Some did their threshing in bamboo enclosures costing several tens of yuan each. Other used highways as threshing ground, thus causing car accidents and injuries to people and animals. Although the original threshing ground owned by production teams can still be used, but they have been divided into small sections among individual households to avoid arguments. Due to the lack of rice threshing tools, waste has been very serious. Commune members have made strong request to farm machinery plants to produce small threshers.

Aware of the aforementioned problem, we are anxious to see it solved. We contacted some farm machinery plants on this matter. Their answer to our query was: "We have received no orders from higher authorities to produce threshers."

The Lintou Commune Farm Machinery Plant was the only plant that had promised to supply threshers, but its threshers are too large and too costly at 82.5 yuan per set—a price that peasants cannot afford. I hereby suggest that farm machinery departments consider the production of a type of small and cheap rice threshers for the peasants.

9574-B

CSO: 4007

NATIVE, SIDELINE PRODUCTS BASES ESTABLISHED

Beijing RENMIN RIBAO in Chinese 30 Nov 80 p 1

[Article: Over a Thousand Large Native and Sideline Products Bases have been Established in China"]

[Text] Beijing, 29 November (XINHUA)--Over 1,000 bases for the production of native and sideline products have been established in China. These bases supply the market with several tens of types of products, including jute, kenaf, silkworm cocoons, tea leaves, bamboo, unprocessed varnish, apples, oranges, edible fungus, red dates, daylilies, palm fiber, reeds, long-haired rabbits and goats. Over 60 percent of the total state procurement of these products come from these bases.

These bases were established and developed with strong support from supply and marketing cooperatives and with the cooperation of departments concerned throughout the country. With the establishment of these bases, the prospect of production of native and sideline products in China has been greatly changed. Many apple producing areas have emerged in provinces north of the Changjiang. In 1979, the national output of apples was 4.6 times more than in 1965, or about one-third the total output of fruit in the country.

The production of citrus fruits has been developed very rapidly in various areas. The amount procured in 1979 was 110 percent greater than in 1965.

The output of edible black fungus went up by 216 percent compared with 1965. The amount procured in 1979 exceeded 83,000 dan, and this year's procurement is expected to reach 90,000 dan.

For a long time, China depended on foreign countries for supplies of jute and kenaf. China now has over 30 counties designated as jute and kenaf production bases, and the annual amount procured increased from some 5.5 million dan in 1971 to more than 21 million dan in 1979. The annual export of these two items exceeded 3 million dan in the past 2 years.

Today nearly 70 percent of the total annual procurement of dried tea leaves in China come from over 120 counties designated as tea production bases.

Through the cooperation among supply and marketing cooperatives and agricultural and foreign trade departments, 157 counties have become goat bases, which can

now provide the nation with 60 percent of all the goatskin procured throughout the country.

Giving aid to communes and brigades to develop a diversified economy has long been an important task of the rural supply and marketing cooperatives. They have also set up a production fund to grant interest-free loans to communes and brigades for developing native and sideline products. At present, contributions to this fund have exceeded 780 million yuan. Currently these cooperatives still have 130,000 experts in diversified economy helping communes and brigades solve problems that arise from the development of such an economy.

9574-R

CSO: 4007

BRIEFS

CONFERENCE ON HERBICIDES—A symposium on herbicides was convened by the Chinese Society of Agricultural Chemicals in Changde City in Hebei Province from 30 July to 4 August 1980. More than 60 delegates from departments concerned with research, application and production participated. They discussed problems in the development and application of herbicides throughout the nation. The delegates unanimously were of the opinion that 1979 was the year of fastest development in the use of herbicides in our agricultural fields. The state farm system accounted for 1/3 of the area using herbicides in the nation. But compared to agriculturally developed countries in the world the use of herbicides in China is still very backward. Land on which herbicides are used only account for 4 percent of the arable land in the nation and 2.7 percent of the multiple cropping area. At the same time the quality of the products is not high, there is not much processing of the chemicals and the equipment is backward. In order to meet suitably the needs of agricultural modernization, it is essential to vigorously develop the use of herbicides in the agricultural fields. As for the problems with developing herbicides, the delegates pointed out that we must continuously develop the existing production of herbicides, improve the production quality and processing and lower the cost in order to support agriculture. We must actively develop production of new herbicides such as fueling (8636 2867 7227), benthocarb, glyphosate and bentazon. Furthermore, we must strengthen basic research in application techniques, carry out coordination well and promote proposals for experiments, demonstrations and popularization work in herbicides. [Text] [Tianjin ZHIMU BAOHU (PLANT PROTECT) in Chinese No 5, 8 Oct 80 p 23]

1980 COTTON PURCHASE—Beijing, 22 Jan (XINHUA)—Chinese Government purchases of ginned cotton for 1980 reached a total of 2.518 million tons by 15 January, hitting an all-time high, according to the All-China Federation of Supply and Marketing Cooperatives. The figure is 453,500 tons more than that of 1979, and an increase equivalent to the raw materials to make more than 1.950 million meters of cotton cloth. It is also 140,000 tons more than that of 1973, the previous peak year for cotton purchases. Good cotton harvests last year came from Shandong, Henan and Hebei provinces, which used to be insufficient in cotton supplies. They had to import more than 200,000 tons of cotton in 1979, but now have begun shipping out cotton to other parts of the country. To date, Shandong and Henan have sent 75,000 tons of cotton to Shanghai and Tianjin cities and other provinces. [Text] [Beijing XINHUA in English 0719 GMT 22 Jan 81 OW]

BRIEFS

FARM MECHANIZATION--Hefei, 6 Jan (XINHUA)--Under the system of responsibility for production and of remuneration according to output, work quota or output quota in agriculture have been fixed for work groups or individuals. Some people at first worried that this new rural economic system would adversely affect agricultural mechanization. Facts in Anhui Province show however that this worry is unnecessary. In 1980, collectives and commune members in Anhui's rural areas bought more than 10,000 new walking tractors and assembled some 8,000 walking tractors by using old diesel engines and new frames. [OW091109 Beijing XINHUA Domestic Service in Chinese 1217 GMT 6 Jan 81]

PEASANTS INCOME--Peasants earn more income and their living standards have improved remarkably, according to a survey conducted by the Anhui Provincial Statistics Bureau in 19 counties in various parts of the province. The survey, which covered 570 rural households with a total population of 3,226 people, revealed that in 1979 private plots averaged 0.125 mu per capita and that average net annual income was 170 yuan per person, up by 30 percent compared with the preceding year. Of this per-capita income, 99.4 yuan was derived from the collective and the rest from individual work, including household sideline production. With the increased income, individual living expenses also increased--to 143.3 yuan on the average, 39.8 percent more than the preceding year. According to the statistics, there were 1.4 bicycles, 0.7 sewing machines, 2.3 radios and 1.4 wristwatches per 10 households. By the end of 1979 average savings were 19.5 yuan per person, nearly double the amount at the beginning of the year. [OW091109 Hefei Anhui Provincial Service in Mandarin 1100 GMT 7 Jan 81]

AGRICULTURAL CADRES--The first training class for agricultural management cadres sponsored by the Anhui Provincial Agricultural Commission concluded recently after a 3-month session. Attending the class were 115 leading cadres from agricultural departments at various levels. They studied political economy, agricultural economic management and basic agricultural science and technology. [OW091109 Hefei Anhui Provincial Service in Mandarin 1100 GMT 8 Jan 81]

AGRICULTURAL OUTPUT--Despite heavy natural disasters, Anhui still reaped a relatively good harvest of cotton, jute, ambari hemp and flue-cured tobacco last year. As of 5 January, the province had procured 2.74 million dan of jute and ambari hemp, an all-time high, and 42,000 dan of ramie, 6,000 dan more than in the corresponding period last year. The province also procured 1.94 million dan of cotton, 450,000 dan more than last year, and 390,000 dan of flue-cured tobacco, 100,000 dan more than in the corresponding period last year. [OW131215 Hefei Anhui Provincial Service in Mandarin 1100 GMT 12 Jan 81]

PREFECTURAL LIVESTOCK-BREEDING--Chuxian Prefecture in Anhui Province strives to develop livestock breeding. The livestock on hand in 1980 included 1,109,000 pigs, 246,300 draught animals and 109,000 sheep. The state bought 509,000 pigs in the province in 1980. [OM220121 Hefei Anhui Provincial Service in Mandarin 1100 GMT 21 Jan 81]

ANHUI AGRICULTURE--Beijing, 21 Jan (XINHUA)--Adoption of the system of fixing output quota on a household basis has brought tremendous changes to some of the formerly poorest counties in Anhui and Shandong provinces. In 1980 Anhui's Dingyuan County sold 4.82 million jin of oil-bearing products--an equivalent of 3 years procurement quotas--to the state, and Anhui's Fuman County sold 104 million jin of grain and 15 million jin of rapeseed to the state in 1980. Shandong's Heze Prefecture, which used to be heavily dependent on the state every year for its grain supply, sold 352 million jin of grain--including 100 million jin of soybean--1.94 million dan of cotton, 18 million jin of peanuts and 19 million jin of sesame to the state last year. [OM230441 Beijing XINHUA Service in Chinese 1253 GMT 21 Jan 81]

AFFORESTATION MEETING--On the eve of New Year's Day, the Anhui Provincial CYL Committee and the provincial forestry department held in Hefei a meeting to commend the young afforestation activists and call on young people in Anhui to do a still better job in afforestation this winter and next spring. According to incomplete statistics, young people in eight prefectures and municipalities in Anhui have afforested 310,000 mu of land and planted trees along 3,920 roads and 1,790 streams and ditches since 1979. Present at the meeting were Wang Guangyu and Lan Ganting, secretary and deputy secretary of the Anhui Provincial Party Committee; Ma Changyan, vice chairman of the Standing Committee of the provincial people's congress; and (Weng Qing), acting secretary of the provincial CYL committee. [Hefei Anhui Provincial Service in Mandarin 1100 GMT 1 Jan 81 OW]

C80: 4007

DEPLETION OF FOREST RESOURCES IN FUJIAN DEPLORED

Beijing GUANGMING RIBAO in Chinese 5 Nov 80 p 2

[Article by Ni Songmao [0242 2646 5399], deputy chairman, Fujian Provincial People's Political Consultative Conference; Lu Weite [7120 4850 3676], chairman, Fujian Provincial Science and Technology Association; Pan Zhongyu [3382 0112 7625], chief engineer, Fujian Provincial Hydropower Department; Wang Yue [3769 1471], director, Fujian Provincial Institute of Microbiology; Yuan Yuegong [5913 2588 0501], professor, Fujian Forestry Academy; Wang Zhaotai [3769 0340 3141], senior engineer, Forest Industry, and 23 others: "An Appeal for Protection of Forest Resources in Fujian Province"]

[Text] Fujian Province is the foremost forest region in South China. As a result of different views and different actions concerning making the most of the forest industry as well as the mistaken notions of some cadres and masses encapsulated in the sayings, "If Fujian is to get rich first, go up to the mountains and cut down trees," and "so long as the banknotes go into one's pockets, who cares about the ecology and later generations," protection of forests has not been taken seriously and there has been wanton cutting of timber and denudation leading to a grim situation of exhaustion of provincial forest resources.

It has been said that during the 5-year period between 1973 and 1978, the forest area throughout the province declined by 19.39 million mu or 21 percent. During the 21-year period from 1957 to 1968, mature timber forest reserves declined by nearly 100 million cubic meters in a greater than 52 percent decline. During 1979, cutting of forests exceeded the amount grown by 21 percent. During the past 30 years, the average preservation rate through afforestation has been only 34 percent, or an annual average preservation through afforestation of less than a 1-million-mu area. [The quota in the province under long-range planning is more than 3 million mu].

Serious depletion of Fujian Province's forest resources is now continuing and becoming increasingly serious. Unless it is stopped at once, it is estimated that after 1985 usable forest resources will be almost entirely cut down. As a result of wanton cutting and denudation of forests, serious impairment of the ecological balance has occurred as the old trees that towered to the heavens and the beautiful hills and waters of the past have changed beyond recognition. The silting of streams and reservoirs in many areas develops apace, and an apparent increase in droughts has taken place.

We unanimously believe that Fujian Province's forest resources are in a state of peril, and leaders and authorities concerned at all echelons should respect science, heed the cries of scientists and technicians, and not bungle the opportunity to salvage them. We urgently call for:

1. diligent enforcement of the "Forest Law," and request that the provincial government issue orders for strict execution of the law to protect the forests with reliance on existing laws, rigorous enforcement of laws, and certain punishment for violators of laws;
2. the serious situation of large-scale transportation outside Fujian Province for sale at negotiated prices of so-called "small lumber," which derives from turning large lumber into small, must be ordered stopped;
3. following thorough investigation and study by forestry industry departments in charge, sensible and workable measures should be put forward as rapidly as possible for the management, protection, development and use of Fujian Province's forest resources;

We also appeal to the people throughout the province to take action at once to help the government correct the unhealthy tendency toward the destruction of forest resources, and strive jointly to develop, protect, and use the forest resources of Fujian Province.

9432
CSO: 4007

BRIEFS

FOREST CONFERENCE--The Fujian Provincial People's Government held a conference on forest protection and forest-fire prevention 9-13 January in Fuzhou. At the meeting, participants exchanged experience over the past 3 years in forest protection and forest-fire prevention and laid down the measures for fulfilling these two tasks in the future. The conference noted that the frequency of and damage from forest fires were still tremendous in the past year, and unauthorized felling of forest trees still rampant. It then urged that all these must be curbed to the minimum in 1981. [Fuzhou Fujian Provincial Service in Mandarin 1035 GMT 17 Jan 81 OW]

GRAIN PROCUREMENT--As of 10 January, Fujian Province had overfulfilled 1980 grain procurement plan. More than 200 million jin of grain were procured at negotiated prices. The total grain output in 1980 is expected to top 1979 by more than 200 million jin. Of the 13 counties which are marketable grain bases in the province, 12 have overfulfilled their grain procurement plans. Longhai County has delivered more than 202 million jin of grain to the state. Jianyang, Pucheng, Jianou, Ninghua and Shaowu counties have each delivered more than 100 million jin of grain to the state. [Fuzhou Fujian Provincial Service in Mandarin 1035 GMT 18 Jan 81 OW]

CSO: 4007

EXPANSION OF FARM MACHINERY PRODUCTION DISCUSSED

Guangzhou NANFANG RIBAO in Chinese 17 Oct 80 p 2

[Article by Wang Shanrong [3769 0810 2837]: "Widen and Enliven Farm Machinery Production"]

[Text] In order to exploit Guangdong Province's special advantages, a widening and enlivening of the farm machinery industry is necessary. A definite foundation for the farm machinery industry already exists in Guangdong. There are currently 222 reactivated farm machine manufacturing and repair plants throughout the province; employing more than 72,800 people, with fixed assets totaling 320 million yuan in value, and an annual production valued at more than 300 million yuan. Virtually every kind of farm machine with the exception of large tractors can be assembled or repaired in Guangdong Province. These include medium and small diesel engines, hand tractors, large combines, tractor drawn implements and some key spare parts, which enjoy considerable reputation in south central China and throughout the country.

It must be realized, however, that currently there is a great deal of overlapping in the layout of centers, duplication in products, complexities in types, poor quality, short life, backward technical performance, and losing enterprises. In the case of hand tractors, for instance, three different models are produced in the province at 18 plant sites. Diesel engines come in 13 varieties of the four series 90, 95, 105, and 135. Twenty-three plant sites produce them, and the highest annual output ever recorded was only around 800,000 horsepower. Inevitably this results in a confusion of models, poor technical performance, and enterprises with losses. During 1978, the labor productivity rate for all personnel was only 5,874 yuan, or lower than the national level of 7,474 yuan. Therefore, there must be a readjustment in the farm machinery industry to play up the strong points and play down the short points among Guangdong Province's characteristics, with emphasis on the needs of rural markets and agriculture, emphasis also on the central task of enabling the peasants to become rich, and adherence to a combination of planned regulation and market regulation to widen and enliven production by the farm machinery industry. In a nutshell, these require adherence to "five services": one is service to agriculture, forestry, livestock raising, sideline occupations and the fishing industry, as well as to commune and brigade enterprises with the development of machinery needed by agriculture, forestry, the livestock raising industry, sideline occupations, the fishing industry, and commune and brigade enterprises. The second is service to the vigorous development of economic crops, developing machinery for sugar, rubber, edible oils,

sugarcane, fruits and such tropical and semi-tropical and economic crops characteristic of Guangdong Province. Third is service to the livelihood of people in the cities and villages with the development of machines and electrical goods that city and country people need in their daily lives or that are related to their handicrafts. Fourth is service to exports with the development of small farm machine export products to earn more foreign exchange for the state for the introduction of advanced technology. Fifth is service to technical improvements in industrial plants, trades, professions, and in commune and brigade operated enterprises through development of machines and the passing on of technical skill to meet the needs of technical improvements and maintenance.

Practice has shown that when the "five services" are carried out, the production of enterprises becomes lively; the enthusiasm of employees becomes high; and the masses become satisfied. The Gaohe County Farm Machine Plant used to produce only a single variety of hand operated tractor trucks. Later on, they conducted a survey in rural villages to clarify needs. In view of rural needs for short haul transportation and ease in loading and unloading, they have developed six kinds of hydraulic, automatic unloading trucks with airbrakes to open a new avenue in production by their enterprise. This fully demonstrates changes in the need for products in rural villages and in the marketplace, and that farm machinery plants must readjust, reorganize, develop new product lines, and increase product quality. It demonstrates that rural villages are a vast marketplace for the farm machinery industry, and that there is a great future and prospects for farm machine products. Thus, the current sentiment that maintains that farm machines are not important and that farm machinery has no future is without foundation.

The internal structure of Guangdong Province's farm machinery industry is currently still imperfect, an imbalance existing among lines of goods and from one enterprise to another. This is to say that varieties are scarce, and that there is a virtual void in machinery needed for the economic crops characteristic of Guangdong Province. Machines for wetland crops also have few accessories for use with them or else the accessories cannot be fitted to the main machines. The production capabilities and technological level of enterprises is quite low. For this reason, some comrades have proposed that without massive state investment to develop new lines and increase production capabilities, nothing can be done! Is this really the case? I believe that investment is no doubt necessary, but to depend on the state, as was done in the past, for massive investment is clearly not possible. The fundamental way to do things is to carry out the program of "developing advantages, maintaining competition, and promoting combinations" that the Central Committee has advocated.

In order for the farm machine industry to run well and be lively, "smallness" must be paramount in the research, design and manufacture of farm machine products. This is because currently the economic size of rural villages is ownership by three levels with the production team being the foundation. With production teams being the foundation, the scale of production is inevitably not large, economic strength is limited, and this plus the current program of rest and recuperation for rural villages, means, naturally, that accumulations by the collective economy cannot be very much. This requires, in turn, that farm machinery products stress smallness above all, with an appropriate production of large and medium size farm machines only to meet the needs of some communes and production brigades. In short, henceforth real attention must be given to adaptation to local situations, to being practical, to striving for economic results. Only when the farm machinery industry strikes roots into the collective economy of communes and brigades can it operate better and become more lively the longer it operates.

MEASURES ADOPTED TO INCREASE EDIBLE OIL PROCUREMENT

Guangzhou NANFANG RIBAO in Chinese 29 Oct 80 p 1

[Text] Throughout Guangdong Province this year, quite flexible measures have been adopted with regard to the state procurement of edible oil, thereby greatly increasing the quantity of edible oil purchased. As of the end of September, 82.9 million jin of edible oil has been purchased by the state and placed in warehouses throughout the province. This amounts to 90.6 percent of annual plan, and an increase of 32.3 percent over the same period last year in a revival of the higher annual levels recorded.

Throughout the province this year, rural villages have acted with the realities of the situation in mind to make sensible adjustments in their patterns of production, expanding the planting of peanuts and such oil crops. In addition, they have also instituted various forms of a system of responsibility for production, thereby greatly increasing output of oil crops. In light of this new situation, every locale has adopted quite flexible measures in the procurement of edible oil to reap very good benefits. The monopoly purchase price for fats and oils was begun last year with average increases of 25 percent, and an additional 30 percent increase in the price paid for excess procurement portions. Additionally, the practice of making award sales of 300 jin of paddy, 80 jin of nitrogenous fertilizer or 28 jin of potash fertilizer for each 100 jin of edible oil was continued without change. In major oil producing areas, peanut base policies were carried out. Grain from state award sales can compensate for state grain quotas and, when approved, oil can substitute for grain. Meanwhile, both fats and oils are accepted. In order to simplify procedures, some prefectures used the method of converting award sale goods into money terms, exchanging them for cash. Consequently, ever since the summer harvest this year, the enthusiasm of farmers in peanut producing areas everywhere for selling oil to the state has been very high, with the sales being made early and rapidly. As of the end of September, Zhanjiang Prefecture had already fulfilled 130 percent of its summer state procurement plan. Meixian, Huiyang, Poshan, and Zhaoqing prefectures as well as Guangzhou municipality had exceeded the plan. Shantou Prefecture had also completed 95.2 percent of the plan.

NEW POLICIES STIMULATE FRESHWATER FISH RAISING

Hong Kong ZHONGGUO XINWEN in Chinese 20 Oct 80 p 2

[Text] Throughout this year, pond fish output from freshwater hatcheries in old bases in Guangdong Province has continued to climb, and there has been constant increases in new pondfish bases as well. In prefectures where little fish hatching had been done in the past, rural village communes, brigades and commune members have started to hatch fish. Through the province, the pondfish area now exceeds 1 million mu. In freshwater hatcheries everywhere in Guangdong Province, silver carp, variegated carp, grass carp, dace, and African crucian carp predominate. The principal pondfish production areas are 25 communes in the five counties of Nanhai, Shunde, Zhongshan, Gaohe, and Xinhui.

As a result of the state's adoption of new economic policies and measures, peasant enthusiasm for the raising of fish has increased, and low yield ponds among the more than 400,000 mu of fish ponds have been dredged, with increased yields being obtained. Since last winter and this spring, every jurisdiction has put to use more than 40,000 mu of low-lying sandy fields, low-lying land, and old river courses to make new fishponds. The greatest expansion of fishpond area has taken place in the counties of Qingyuan, Doumen, Dongguan, Sanshui, Sihui, and Wuchuan. Most newly built fishponds are concentrated in the suburbs of large cities. Huixian in the suburbs of Guangzhou has developed 3500 mu of fishponds. The municipalities of Shantou, Zhanjiang, Zhaoqing, Jiangmen, Huizhou, Shaoqian, Shenchuan, and Zhuhai have respectively enlarged their fishponds by about 1000 mu. In Guangning, Gaoyao, Gaozhou, Yangchun, Lingshan, and Xinyi counties in the mountain regions of western Guangdong, and in the suburbs of Guangzhou municipality, numerous individual peasants are raising pondfish.

9432

CSD: 4807

INCREASED RICE OUTPUT DUE TO SPECIALIZED CONTRACTS

Guangzhou NANFANG RIBAO in Chinese 29 Oct 80 p 1

[Article by Huang Nian (7806 1628) and Zhang Nuxi (1728 1172 0823): "Great Increase in Output as Specialized Contracts Put Into Effect in Rice Fields"]

[Text] Following the signing of contracts, beginning with the early crop last year, the Neiguang Production Brigade of Meitang Commune in Puning County has entrusted planting and care of crops in open fields to specialized workers. Ever since implementation of this system of responsibility, output from each crop has increased, and the brigade, which had formerly not had high output, has bounded forward to become a high output brigade.

Neiguang Brigade contains 288 households of 1670 people, and farms 802 mu. Each crop of rice has usually seen the planting of between 400 and 500 mu, and yields have been between 600 and 700 jin per mu. Within the commune and within the county, it ranked as a medium level brigade in terms of production. For last year's early crop, they contracted the planting of a portion of the rice fields to commune members who had the labor and the skills to do the job, stipulating guaranteed yields of 800 jin per mu, with the collective providing 25 workers, 80 jin of nitrogenous fertilizer, 30 jin of potash, 20 yuan as a fee for purchase of nightsoil, and 5 yuan as a fee for farm chemicals, with the planting of seedlings, plowing and harrowing, drainage and irrigation being the unified responsibility of the brigade. Any yields greater than the agreed upon 800 jin but less than 1000 jin were to be shared equally by the collective and individuals, and all yields in excess of 100 jin were to go to commune members, with commune members indemnifying any shortfalls in yields except those attributable to exceptional natural disasters. Sixty-five households with a large labor force of commune members signed a contract with the production team contracting for 185 mu, additional acreage remaining the responsibility of the brigade to provide labor for planting. As the outcome of the summer harvest, the 185 mu of paddy fields specially contracted out produced a yield of 902 jin per mu, an increase over the 1978 early crop of 249 jin. Of the 65 households involved, 18 had yields of more than 1000 jin per mu, and only two households showed a shortfall totaling 128 jin. As a result of the greatly increased output of the specially contracted area, per unit yields for the 500 mu of early rice crop for the entire production brigade rose to 846 jin per mu, a 193 jin increase in output over the early crop last year. For last year's late crop, commune members participating in the specialized contracts for paddy fields increased to 104 households who contracted for 280 mu of paddy fields. Harvest results showed yields of 856 jin per mu on the 280 mu of

paddy fields contracted for, thereby raising per unit yields of late crop paddy for the entire brigade to 829 jin per mu for a yield increase of 105 jin per mu. For this year's early crop, another increase to 220 occurred in the number of participating households who contracted for 150 mu. The method of encouragement was readjusted as follows: any portion greater than the contracted for quota but less than 1000 jin would be divided, with 70 percent going to commune members and 30 percent going to the collective, and the stipulated output quota would also be based on differences in the quality of soil in different fields. This was democratically evaluated, announced in a public notice, and a choice offered to commune members. Despite strong lashings by typhoons, early crop rice yields for the entire brigade still amounted to 851 jin per mu, a slight increase over last year's early crop. This year, specialized contracts were arranged for all of the rice fields. For peanuts, sugarcane, soybeans, Mandarin oranges, and such economic crops, beginning with the early crop last year, a system similar to that used for paddy rice was instituted. The amount of labor was set; costs were set; and rewards were given for production in excess of quotas. Commune members were allowed to voluntarily contract for production, and those commune members with a large labor force and skilled commune members could contract for somewhat more, or they could contract for less or not contract at all. When production was not contracted for, or in cases where contracting was done but the labor force was large enough to engage in other labor as well, production teams made uniform arrangements. Some were assigned to raising oxen or taking care of water in the production teams; some were provided for in brigade operated industrial or sideline occupation plants; and some worked at home on sideline occupations such as drawwork.

The experience in specialized contracts by the Neiguang Brigade has demonstrated numerous advantages. First of all, it assured full play of the unified operation and unified accounting by production teams and the superiority of the collective economy. Secondly, it helped make the most of commune member expertise, and aroused the enthusiasm for labor of commune members. Third, use of specialized contracts both allowed scope for action by those commune members with a strong labor force and high skills to make fairly large increases in their incomes, but also enabled those distressed households with a weak labor force, or no labor force at all, to gradually improve their situation as the collective economy developed and to have their livelihoods assured. Last year, distributions of consumption grain to commune members throughout the brigade averaged 478 jin per capita, an increase of 75 jin over the previous year. This year's early crop will allow consumption grain of 225 jin per capita, another increase over the same period last year of 230 jin. Consumption grain for those commune members who did not contract for paddy rice production had also increased.

9432
CSO: 4007

NEW VARIETIES, OTHER ACHIEVEMENTS RECOUNTED

Guangzhou NANFANG RIBAO in Chinese 7 Oct 80 p 1

[Text] The Provincial Agriculture Department has selected for emphasis the following from among a group of research achievements in agriculture and livestock raising made in Guangdong Province in recent years, and it has decided to conduct demonstrations to promote them throughout the entire province with adaptations to meet local conditions.

Among these items for emphasis, demonstration, and promotion are techniques for summer and autumn propagation and preservation of Ximanjiang red and green duckweed; techniques for economically effective applications of potash fertilizer; chemical herbicides for rice fields; techniques for the growing of 1000 jin paddy rice and 10,000 jin sweet potatoes; "five improvements" techniques for peanuts (namely a change from inferior varieties to superior varieties, a change from large plots to small plots; a change from scant application of basic fertilizer to many applications of basic fertilizer; a change from crude care to meticulous care; and a change from late elimination of insect pests to early elimination of insect pests); techniques for budding in the growing of sugarcane seedlings and nutritional cup growing of seedlings; technique for pruning orange trees twice each year to renew the roots, control the crown of the tree, and preserve blossoms and fruit; technique for the breeding of water buffalo using frozen semen; standards for the feeding of hogs; cutting down on chalcid flies and preventing and controlling lichee stinkbugs; prevention and control of trichogramma and snout moth larva in sugarcane.

They also want to promote some new varieties of agricultural crops in addition to the above 11 items. These include the early rices, Hunanzao, Hong 401, Guang'er 104, and Qingsi 24. Late rices include Nanhezao, Hanluzao, Zaobatai, and Guiyang 121. Rices used for early or late crops include Guichao No 2, Shanyou Nos 2, 3, and 6, and Weiyao Nos 3 and 6. Sugarcanes are Chaozhe No 1, Zhanzhe 64-285, and Pushu Nos 11 and 14. Peanuts are Yuexuan No 58.

In order to promote demonstrations and an increase in the application of these things, the Provincial Agriculture Department has allocated special monies to units concerned for use as supplemental funds.

READJUSTMENT OF SHANTOU PREFECTURE AGRICULTURE DISCUSSED

Guangzhou NANFANG RIBAO in Chinese 19 Oct 80 p 1

[Article by Chen Dehui (7115 1795 6540), Huang Shizhong (7806 0013 1813), and Cai Yongxiang (5591 3057 4382): "Readjustment of the Agricultural Structure Without a Decline in Increased Grain Output. Last Year in Shantou Prefecture, the Area Sown to Grain Was Reduced by More Than 600,000 Mu, Yet Grain and Peanut Output Exceeded Highest Levels Ever Recorded"]

[Text] During the past 2 years, Shantou Prefecture has acted in accordance with realities throughout the prefecture to readjust the pattern of production, making appropriate reductions in the area planted to grain, and broadening the area of economic crops such as peanuts and Mandarin oranges. This has both achieved a development of economic crops and has promoted production of grain. Last year, the area sown to grain throughout the prefecture was reduced by more than 600,000 mu, this amount being used for the growing of peanuts and Chaozhou oranges as economic crops. Total grain output continued the increases of the previous 3 years for an increase in output of 117 million jin. The area of this year's summer grain crop harvest was further reduced by 95,000 mu over last year, yet total grain output increased by more than 46 million jin. Last year, the area planted to peanuts increased 100,000 mu over the previous year, and total output increased 48.4 percent over the previous year for a 33.7 percent increase over the highest recorded levels. This year's spring crop of peanuts increased by another 110,000 mu over the same period last year, and total output increased 17.4 percent over the same period last year. Last year, total output of both grain and peanuts reached their highest levels in history.

Shantou Prefecture's climate is warm; rainfall is copious, and most of the soil on the plain is river alluvium. Both climate and soil conditions are favorable for the growth of both grain and economic crops. Historically, Chaozhou oranges, peanuts, and jute have been grown as economic crops over fairly wide areas, and per unit yields have been very high. But during the 10 years of disorder, full use could not be made of these advantages owing to the disturbance caused by the ultra-leftist line. After smashing of the "gang of four," and most particularly since the Third Plenary Session of the 11th Party Central Committee, the Shantou Prefecture CCP Committee has undertaken a summarization of the lessons of experience, deciding to actively develop economic crops even while holding firm on grain production. Last year the Prefecture CCP Committee announced that the various area planting plans handed down by higher authority were only for consideration, and that each commune and brigade had the right to plan its planting by

adjusting overall methods to local situations. Thus, communes and brigades had the power of decision and could act on the basis of local realities to make appropriate reductions in the area planted to grain while expanding the area of economic crops. Meanwhile, most places throughout the prefecture instituted a system of responsibility for production, particularly one form or another of a system of responsibility linked to production, which greatly increased the enthusiasm for production of commune members. Following institution of a system of responsibility linked to production, 14 communes (farms) in the mountain areas of Puning County, which are hardship communes, saw across-the-board agricultural development, and a striking improvement in the livelihood of commune members.

Following readjustment to the crop pattern, despite a reduction in the grain area, thanks to promotion of the superior "Guichao" variety of rice, large increases in fertilizer supplied by the state, and good weather, per unit yields of grain rose, and total output rose as well. Additionally, since last year, acting in accordance with the spirit of Party Central Committee liberalized policies, the Prefecture CCP Committee decreed that the private plots, forage growing plots, and wastelands being reclaimed by commune members could amount in total, to 15 percent of the total cultivated area. In places with lots of mountain wasteland, each household of commune members was permitted from between 1 and 5 mu of mountain land for personal use. Last year, quite a large amount of grain was harvested throughout the prefecture from commune member's private plots, reclaimed wasteland, and forage growing grounds, and this constituted a major supplement to grain output for the entire prefecture.

After readjustment of the crop pattern, in addition to vigorous efforts made by the Shantou Prefecture CCP Committee to implement the various policies of the Party Central Committee and the province with regard to procurement, exchange procurement, and award sales, additional measures were taken to encourage and support communes and brigades to develop economic crops. One was a suitable increase in award sales quotas. A second was an allocation of funds from local financial resources and from profits earned by plants using agricultural products as raw materials, commercial enterprises, and supply and marketing units for use as supplemental price subsidies for sugarcane and jute. Third was the organization of supply and marketing units to procure, at negotiated prices, first, second, and third category agricultural products over and above fulfillment of state quotas. Fourth was a linking of plants and brigades, or agriculture and commerce in the promotion of a contract system with proportional division of profits. Fifth was a suitable reduction in requisition grain purchase quotas for some communes and brigades that are purely agricultural, producing purely grain, or purely rice, so as to permit them to develop some economic crops. Sixth was planned fostering of some production bases, providing them assistance with funds, fertilizer, and the planting of seedlings. Additionally, was encouragement to commune members to grow economic crops on their private plots, on the four sides (house side, village side, roadside, and waterside) and the five parts, on reclaimed land, and on leftover land in orchards. This series of measures effectively aroused the enthusiasm of the masses to develop economic crops.

Not long ago, the Shantou Prefecture CCP Committee convened a conference of County CCP Committee secretaries to summarize the experiences of the past 2 years in the readjustment of the pattern of agriculture, to decide on active and safe steps to

be taken to readjust the proportional planting of rice and economic crops, and to expand the area of peanuts, sugarcane and jute as economic crops. Comrades from every county noted that some communes and brigades had made appropriate reductions in their paddy field area, but had not put it to full use for the growing of economic crops. Some had been used by commune members to build houses, thereby reducing the farming area and acting contrary to the welfare of the masses of commune members. Discussion must be held with the masses about this and guidance work done in order to solve the problem satisfactorily.

9432

CSO: 4007

BRIEFS

SHRIMP BASE--Initial results have been obtained from the man-made shrimp hatchery bases constructed along the seacoast of Guangdong Province. The Moji (1075 0679) shrimp released for breeding this June have grown to 15 centimeters and are frisky, plump and strong. Next month a portion of them can be sent to foreign markets. At the present time, Guangdong Province has an area totaling 3000 mu in production at four artificial shrimp hatching bases in the cities of Haifeng, Taishan, Yangjiang and Zhanjiang, and plans call for the building of shrimp hatching bases totaling more than 40,000 mu in areas slated for completion in 1985, with production capabilities reaching an output of approximately 1000 tons for every 100 million of shrimp larva released per 10,000 mu. In Guangdong Province, shrimp may be released twice annually. Varieties released are paneus shrimp, nine joint (0046 4634) shrimp, daoexin (0430 7345 2450) shrimp and Moji shrimp. Paneus shrimp are large, three or four of them making a catty. Nine joint shrimp are also known as Japanese shrimp, which are released only in coastal areas from Xiamen in Fujian to Guangdong. These grow to 17 or 18 centimeters long. Daogexin shrimp are called sand shrimp in Guangdong, and they are able to live outside water for from 5 to 6 hours. [Text] [Guangzhou NANFANG RIBAO in Chinese 20 Oct 80 p 2] 9432

ZHONGSHAN COUNTY SUGARCANE--Zhongshan County has conscientiously carried out the new Provincial People's Government policies for procurement of sugarcane, and has taken in hand the planting of the autumn crop of sugarcane, so that as of mid-October, more than 70,000 mu of the fall planting of sugarcane had already been planted throughout the province. This amounts to more than 40 times the area required to be planted in sugarcane. Zhongshan is the principal sugarcane production area in Guangdong Province in which autumn planting of sugarcane has been customary. Because policies regarding sugarcane frequently changed in the past to the detriment of the enthusiasm of sugarcane farmers, the area planted to sugarcane in the fall throughout the province diminished. Now the Provincial People's Government has passed down information about a readjustment in its sugarcane procurement policies, which the Zhongshan County People's Government has made known and implemented at once. The enthusiasm of the masses has been enormously increased, and the area planted to sugarcane in autumn has been rapidly completed. Quite a few production teams in the Sanjiao Commune formerly planned to reduce the area of autumn planting of sugarcane, but once information about the readjustment in sugarcane policies was passed along, they revised their planting plans. As of mid-October, the entire commune had already planted more than 8400 mu of autumn sugarcane, or more than 70 percent of the total area to be planted. [Text] [Guangzhou NANFANG RIBAO in Chinese 26 Oct 80 p 1] 9432

PEANUT PROCUREMENT--Guangdong Province has had a bumper harvest of peanuts this year, and a great increase in the quantity of edible oil procured by the state. As of the end of September, more than 80 million jin of oil had been purchased and placed in warehouses, an increase of more than 20 percent over the same period last year. This year Guangdong rural villages readjusted their patterns of production, expanding the amount of oil bearing crops such as peanuts for great increases in output. In their procurement of edible oils, commercial units everywhere have also adopted flexible measures with very good results. Since the summer harvest this year, farmer enthusiasm to sell oils and fats has been high everywhere throughout peanut growing areas. As of the end of September, commercial units in Zhanjiang, Meixian, Huiyang, Foshan, and Zhaoqing prefectures as well as in Guangzhou municipality had overfulfilled edible oil procurement plans. [Text] [Hong Kong ZHONGGUO XINWEN in Chinese 31 Oct 80 p 3] 9432

CS01 4007

BRIEFS

SCIENTIFIC FARMING CONFERENCE--Guangxi region held a meeting from 13 to 19 January on scientific farming and scientific animal husbandry in Nanning. Some 500 people including experts and scholars attended the conference. Xiao Han, secretary of the regional CCP Committee and deputy director of regional People's Government, also attended the conference and delivered a speech. The conference summed up and exchanged experiences in scientific farming and animal husbandry throughout the province in the past year. The conference held that grain production was of utmost importance and was related to the livelihood of the people. Therefore, it is practical and necessary to promote scientific farming in accordance with local conditions. The conference also demanded that all areas promote animal husbandry to increase income. The conference also awarded citations to some 1,700 advanced collectives and individuals involved in scientific farming and animal husbandry in the province. [Nanning Guangxi Regional Service in Mandarin 1130 GMT 20 Jan 11 HK]

CSO: 4007

BRIEFS

GUIZHOU AFFORESTATION--The Guizhou Provincial People's Government at the end of 1980 issued a circular on planting trees. The circular calls on all localities to plant trees during the current winter-spring period. In addition to afforestation by communes and production brigades and teams, commune members are encouraged to plant trees near their houses. The circular also urges government organizations, mass organizations, PLA units, schools, mining and industrial enterprises, business firms and urban people to plant trees in their vicinity or in areas designated by local government in order to landscape the surroundings. [OW181055 Guiyang Guizhou Provincial Service in Mandarin 2315 GMT 14 Jan 81]

RICE PRODUCTION--During 1980, Guizhou planted a total of 1.24 million mu of fine hybrid rice, marking an increase of 17.7 percent as compared with 1979. [Guiyang Guizhou Provincial Service in Mandarin 2315 GMT 16 Jan 81 OW]

CSO: 4007

BEIJING'S WATER CONSERVANCY CONSTRUCTION DISCUSSED

Beijing RENMIN RIBAO in Chinese 4 Nov 80 p 2

[Article from Beijing Water Conservancy Benefits Survey Unit, Ministry of Water Conservancy: "Capital City Water Conservancy Construction Not To Be Taken Lightly"]

[Text] Great achievements have been made during the past 30 years in Beijing municipal water conservancy construction. Before Liberation, the Beijing area was without a single reservoir, not a single rivercourse was open, dykes were dilapidated, and wells were few. Following the founding of the People's Republic, the Miyun Reservoir, and the Guanting Reservoir were constructed, the Chaobai River and the Yongding River were brought under control, dykes were repaired, watercourses dredged, and a large number of water conservancy projects for the opening of channels to lead water to farmlands were carried out with great multiple benefits for Beijing's economic construction and the livelihood of the people. Still, water conservancy construction in the capital city still contains numerous problems requiring serious attention and the earliest adoption of vigorous measures for a solution.

The standards for resisting calamity and preventing flood of water conservancy projects in the capital city tend to be low, and were a fairly large natural calamity to strike, it would be difficult to stave it off. One of the weakest links is the Yongding River system. The Yongding River is directly related to the safety of the capital city. During the 400 years prior to Liberation, along the stretch near Lugouqiao [Marco Polo Bridge] alone, it burst its dykes 14 times, and floodwater twice swept through Beijing. Though ability to control floodwaters was enhanced following construction of the Ziguanting Reservoir, nevertheless, in the gorge below Guanting, there is no project for the control of floodwaters, and should there suddenly be a recurrence of the flood peak of 1939, (a rate of flow exceeding 4000), the dykes at Lugouqiao would be in danger of bursting. Were there to be a recurrence of the especially large flooding of 1801 and 1890, the Yongding River would once again create a disastrous flood, and floodwaters would once again engulf Beijing.

Though the principal water conservancy projects for Beijing have taken preliminary shape, several medium and small streams have not yet been brought under control, projects among fields have not been linked into a system; the plains and vegetable growing areas are prone to waterlogging; and the openness to drought of mountain areas remains to be solved. Almost every year, several tens of thousands of mu of farmland are stricken with disaster. This year saw the largest drought in the

past 110 years, with the virtual drying up of more than 100 streams throughout the city. More than 80 reservoirs and numerous ponds dried up or fell below stagnant water levels, and subterranean water fell by from 3 to 10 meters. Five thousand drilled wells nearly went dry. Throughout the city, 5 million mu of grain crops were struck with disaster with no crop at all being harvested from 500,000 mu of them.

Because Beijing is a large urban area with a small suburban area, municipal construction and industrial use of water has grown rapidly, and Beijing's surface runoff water resources have become in ever shorter supply. As a result of excessive tapping of it, subterranean water has also been funneled away over an area of almost 100 square kilometers in the city and nearby suburbs, and the quality of the water has consequently turned bad. Industry and agriculture compete for water, and the squeeze of industry on agriculture for the use of water becomes more serious daily. In a situation of insufficient water resources, there will have to be a future abandonment of agriculture to preserve industry, which is out of line with the priorities of "agriculture, light industry, heavy industry" in plans for the building of production.

What arouses particularly serious attention is that water is not well flushed away from Beijing municipal and suburban areas, resulting in serious pollution of the water. Most of the pollution comes from steel, chemical fertilizer, and electric power industries. For example, more than 80 percent of the pollution of water in Beijing's western suburbs comes from the Shijiazhuang Steel and Iron Works. The main petrochemical plant has seriously polluted water resources in the Pingyuan district of Fangshan County. According to rough statistics, more than 180 cubic meters of waste water is flushed daily through the more than 30 streams of Beijing, and the toxic content exceeds nationally prescribed standards, creating increasingly serious pollution of watercourses, subterranean water in plains areas, and of farm crops, directly impairing agricultural production, and impairing the livelihood and physical health of the people as well.

Judging from the four proposals made by the Central Secretariat on Beijing work and the present situation in the Beijing area, the guiding mentality and programs for the construction of water conservancy in Beijing are very much in need of study. We believe that Beijing's water conservancy construction requires, first of all, an increase in the flood prevention capabilities of the western line of the Yongding River system, reinforcement of the Guanting Reservoir, and the building of the Fujialai Reservoir in order to vouchsafe the safety of the capital. At the same time, a good job has to be done in treatment of waste water and the flushing of water through watercourses such as Tonghui River and Liangshui River, as well as control over other medium and small rivers. Second, there should be a strengthening of the unified management of Beijing's water resources and both conservation and tapping of unused potential in the use of water by agriculture and industry, with planned development of new water resources. Strict controls must be exercised over the development of industries that use large amounts of water such as metallurgy, the chemical industry, and electric power. Every planned new construction project must provide, at the same time, a plan for proposed use of water. Industry, agriculture, and urban construction must all adopt measures to lower their requirements for water, and institute planned use of water with multiple charges being levied for exceeding plan. In addition, there is need

for comprehensive management. The 1979 experience at experimental sites has demonstrated that while Beijing is fully able to have water conservancy management units take care of water conservancy projects, it can simultaneously operate new kinds of aquatic, agricultural, industrial, commercial, and tourism enterprises that include the generation of electricity, the raising of fish, forestry and tourist services. While carrying out other reforms, Beijing municipality should also commensurately readjust and reform its management system for water conservancy construction.

9432

CSD: 4007

HEBEI

BRIEFS

HEBEI AGRICULTURE--In 1980, the peasants in Hebei reaped a bumper harvest of most of their agricultural and sideline products. From January to November 1980, the finance and trade departments throughout Hebei purchased a total value of 3 billion yuan of agricultural and sideline products. This was an increase of 30 percent over the corresponding period last year. Purchase of 11 main agricultural sideline products, including cotton, tobacco, hemp, wool, sheep skin, goatskin, honey and pigs, increased by 2.9 to 52.5 percent, respectively, over the corresponding period of last year. According to statistics on 20 December, the finance and trade departments throughout Hebei purchased 458 million jin of ginned cotton, an increase of 258 million jin over the corresponding period of last year, overfulfilling the year's purchasing tasks by 165 million jin. It is expected that each farming person in the province will earn an average of 17 yuan more in income. [HK090808 Shijiazhuang Hebei Province Service in Mandarin 0430 GMT 30 Dec 80]

CRO: 4007

PEASANTS RAISE MORE LIVESTOCK

Beijing RENMIN RIBAO in Chinese 7 Nov 80 p 2

[Article: "Heilongjiang Commune Members' Livestock Industry Develops Rapidly"]

[Text] Heilongjiang Province's encouragement to commune members throughout this year to raise more livestock has produced notable results. As of the end of September, the raising of yellow oxen by commune member families throughout the province showed a 3.2 fold increase over the same period last year. Raising of milk cows showed a 5.7 fold increase over last year; raising of horses increased 3.4 fold over last year; raising of sheep increased by 83 percent over last year; and raising of rabbits increased 86 percent over last year.

Everywhere in Heilongjiang Province, some workable measures have been adopted. Limitations on the numbers of livestock that commune families may raise have been abolished. So long as commune members make sure to do a good job of collective production, do not hire labor to exploit, and do not damage state resources, they may raise more and better livestock.

Help has been given commune members in finding a source of supply for livestock. During this year, some communes and brigades have sold to commune members at a fair price from 10 to 30 percent of their herds of sheep and cows so that commune members could raise them. Some other communes and brigades have contracted with households for the raising of collectively owned cows and sheep. In some counties and communes, sheep breeding fairs were run so that commune members could get rid of excess sheep or get sheep if they needed them.

Help has been given commune members to solve problems in finding pasturage, forage grass, and feed. The usual method used in various places was to pasture together the cows and sheep belonging to commune members on common production team grasslands and grassy slopes, with the cattle being returned to the household of their owners at nightfall. Pasturing areas were designated for the use of commune members. In farming areas that had no grasslands or grassy slopes, production teams made unified arrangements to supply a certain amount of plant stalks to households raising cows and sheep for use as fodder.

Financial and technical support has been given commune members to raise cattle. Numerous counties, communes, and brigades have allocated some funds or have resorted to bank or credit cooperative loans to help hard-up commune members buy livestock. They have actively helped commune member households raising sheep and cows with breeding and improvement of herds. Cattle and sheep being raised by commune members are given periodic inoculations just as collectively owned cattle and sheep are.

HEILONGJIANG

BRIEFS

AGRICULTURAL PRODUCTION--Bayan County, Heilongjiang, reaped a bumper harvest in grain and soybeans in 1980. The per mu grain yield was 518 jin on average. Total grain and soybean output was 887 million jin and 460 million jin were delivered to the state. The average income per commune member was over 1.30 yuan. An average of 3,830 jin of grain per laborer was handed over to the state. [Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 11 Jan 81 SK]

WUCHENG COUNTY PADDY RICE--Wucheng County, Heilongjiang Province, had sold some 49.09 million jin of paddy rice to the state as of 13 January 1981, overfulfilling the 1980 paddy rice procurement plan by some 98,000 jin. [SK150942 Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 14 Jan 81 SK]

FARM MECHANIZATION--Heihe Prefecture, Heilongjiang Province, has developed farm mechanization since 1954 and made its greatest progress in 1980. About a third of the production teams throughout the prefecture have now achieved farm mechanization. By the end of 1979, the prefecture had 3,000 tractors and 900 harvesters. Today it has 4,500 tractors and 1,600 harvesters. Some 115 million yuan has been invested in farm mechanization. The 1980 output of grain, soybeans and potatoes was 1.19 billion jin, and the total income from agricultural sideline production was 250 million yuan. [SK210921 Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 19 Jan 81]

CS01 4007

WATER RESOURCES IN JIANGSU DISCUSSED

Nanjing XINHUA RIBAO in Chinese 12 Oct 80 p 2

[Article by Wu Weimin (7135 3634 3046), Jiangsu Provincial Water Conservancy Survey and Design Academy: "Exploratory Talk on Development and Use of Jiangsu Province's Water Resources"]

[Excerpts] Average annual precipitation throughout Jiangsu Province has stood at 983 millimeters for many years, and the annual quantity of precipitation totals 98.5 billion cubic meters. Apart for the loss through interception and use by farmland, evaporation, and seepage, a total volume of 24.7 billion cubic meters goes into rivers as surface runoff water. The amount of precipitation is higher than the national average, but the amount of runoff is lower than the national average. In terms of average population, the quantity of runoff is lower than the national average, and even lower than world average figures.

At present, the greatest use made of water in our province is for agriculture. The effective area of irrigation is 58.56 million mu, amounting to 84 percent of the cultivated area. When taken together with the use of water for industry, shipping and by urban dwellers, the normal annual need is for more than 40 billion cubic meters, or more than 30 billion cubic meters in dry years. When further development of industry and agriculture are taken into account, it is estimated on the basis of existing projects that long-range use of water will, at minimum, increase by 6 or 7 billion cubic meters.

Generally speaking, there is virtually no shortage of water anywhere in the province during normal years, with the exception of a small number of places in hilly regions and along the seacoast where difficulties exist in supplying water. But in dry years, supply does not meet demand and there is a shortage of about somewhat more than 10 billion cubic meters of water, with the shortage centered north of the Huai, in reclamation areas along the sea, and in hilly regions of Zhenjiang, Nanjing, and Yangzhou. To take the great drought year of 1978 as an example, after a large volume of river water had been pumped throughout the province, there were still 4.5 million mu where output was reduced by more than 50 percent, and 2.7 million mu on which the harvest completely aborted. Most cotton and dryland crops could not be normally irrigated, and along the Xuzhou section of the Grand Canal running between Beijing and Hangzhou, navigation was interrupted for more than half a year, and seacoast ports seriously silted up.

9432

CSO: 4007

BRIEFS

LAND RECLAMATION UNITS--Land reclamation units in Jiangsu Province have succeeded in increasing farm output and further developing industrial and sideline production in 1980. Their total profits reached more than 31 million yuan, an increase of 10 percent compared with 1979. Total annual output of ginned cotton and grain reached respectively 225,000 dan and 400 million jin. One state farm's annual income reached more than 1 million yuan. In 1980 these units also supplied export goods worth some 11 million yuan. [Nanjing Jiangsu Provincial Service in Mandarin 2300 GMT 9 Jan 81 OW]

SEED BASES--Over the past 2 years the Jiangsu Provincial Farm Reclamation Bureau has achieved initial success in strengthening seed base planning and building. As of now the province has built 11 fine seed-cultivation bases, and has in the past 2 years delivered over 13.5 million jin of fine seeds of grain, cotton, oil-bearing crops, beet and green manure to various production units throughout the country. [Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 12 Jan 81 OW]

ANTIDROUGHT ACTIVITIES--The low temperatures and scant rainfall in areas north of the Huaihe River in Jiangsu over the past month has affected wheat, barley, rape, green manure and other overwintering crops. The masses in these areas have been mobilized to combat drought and frost and to protect the crops. As of 8 January, wheat and barley on 5.8 million mu had been protected against drought, representing one-third of the total acreage. [Nanjing Jiangsu Provincial Service in Mandarin 2300 GMT 10 Jan 81 OW]

FIELD MANAGEMENT--Suzhou Prefecture has stepped up field management for overwintering crops. Fifth-seven percent of the manpower is taking part. As of 13 January, 3.5 million mu of wheat, barley and naked barley have been fertilized, 90 percent of sugarbeet watered and 900,000 mu of rape fertilized for the second time. [Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 22 Jan 81 OW]

CSO: 4007

BRIEFS

AGRICULTURAL, LIVESTOCK HARVEST--Despite natural adversities, Jilin Province still reaped a better grain harvest last year. The total grain output is estimated to reach or exceed 17 billion jin; oil-bearing seeds, 460 million jin--a 60 percent increase over the 1979 figure; and beets, 1.14 million tons--a 72 percent increase over the 1958 record output. The provincial agricultural output value reached 3.78 billion yuan, a 3.6 percent increase over the 1979 figure. Other undertakings throughout the province were also developed. The province completed its afforestation over 2.39 million mu, a 25.5 percent increase over its 1980 afforestation plan. It raised 3.01 million head of marketable hogs, a 7 percent increase over the 1979 figure; cattle, 90,000 head, a 47 percent increase over the 1979 figure; and sheep, 230,000 head, a 60 percent increase over the 1979 figure. The total output value of the provincial commune-brigade-run enterprises reached 1.04 billion yuan, a 19.8 percent increase over the 1979 figure. [SK171004 Changchun Jilin Provincial Service in Mandarin 1100 GMT 16 Jan 81]

HOG PROCUREMENT--Lishu County, Jilin Province, procured 10,120 hogs in 1980 and sold some 100,000 marketable hogs in the county and some 65,000 outside the county. It sold 81,000 hogs in 1980, an increase of some 7,000 over the 1979 figure. [Changchun Jilin Provincial Service in Mandarin 1100 GMT 20 Jan 81 SK]

ZHENLAI COUNTY OUTPUT--The output value of commune- and brigade-run enterprises in Zhenlai County, Jilin Province, was 20 million yuan in 1980, an increase of 100 percent over the 1979 figure. These enterprises also a profit of 3 million yuan in 1980, topping all past records. [Changchun Jilin Provincial Service in Mandarin 1100 GMT 15 Jan 81 SK]

CSO: 4007

'XINHUA' FEATURE HAILS PIG FARMER'S INITIATIVE

OW210731 Beijing XINHUA in English 0700 GMT 21 Jan 81

["News Feature: Family Pig Farm in Northeast China Province"--XINHUA headline]

[Text] Shenyang, January 21 (XINHUA)—A northeast China peasant woman who was discredited at village meetings a few years ago because she raised some pigs to feed her family is now back in business--this time on a fair-sized pig farm with backing from the Agricultural Bank of China.

Su Yulan, 42, who raised 110 pigs last year on her farm on the outskirts of Shenyang, capital of Liaoning Province, has become known across the country. Her farm is being publicized as part of the government program to encourage peasants to expand collective and household sideline production.

Su Yulan last year sold 50 pigs to the government purchasing agents for a total of 8,800 yuan. She planned to use part of the net profits, 5,000 yuan, to buy a fodder crusher and an electric pump.

"I could have sold some of the pigs at village fairs for higher prices," she told XINHUA.

As members of the local production team, the family contributes to it money and manure for fertilizer, in exchange for essentials like food grain and firewood.

A commune official said in an article in the local paper, "In other words, Su Yulan's farm is a supplement to the collective economy."

She and her family live in the Xinchengzi District, where 40,000 peasant families produce vegetables and other foods for Shenyang city. Of these, 3,000 have set up family pig farms with help from the government.

Provincial authorities said that in the first ten months of 1980, the Liaoning branch of the Agricultural Bank of China gave loans totalling 22.54 million yuan to help the province's peasants raise pigs.

Su Yulan was ridiculed in 1974, at the height of the "Cultural Revolution," as a "typical example of the spontaneous drift of peasants towards capitalism."

Now she gets official encouragement as a typical example of the peasant initiative--and thousands of visitors from across the country.

The crux of the argument over projects like hers is the fear expressed by some people that any form of private enterprise is a direct, or potential, challenge to the socialist economy.

The official encouragement she has been given provoked a debate when it was reported in the provincial newspaper, the LIAONING DAILY. For weeks, letters poured into its office.

Some tut-tutted about capitalist tendencies while others supported the government policy.

An oil company clerk wrote that the central issue is "whether the socialist orientation is to be adhered to." He asked: "Who can exclude the possibility that private ownership will become strong enough to compete with the collective ownership?"

Another reader said the Agricultural Bank of China should have given the 6,000 yuan it loaned Su Yulan to a collective farm instead. "Many peasant families have financial difficulties, so why did Su Yulan get special treatment?" he asked.

Later, in an editorial, the paper pointed out that Su Yulan and her family do all the work on the farm. They employ no outside labor--a central issue in the debate on domestic enterprise. The paper said: "Individual production involving no exploitation of others is legal in China, according to the constitution."

Work on the pig farm keeps Su Yulan busy from morning till night. Her husband and two eldest daughters, who work for the commune and in the production team, help in their spare time. Other children lend a helping hand after school and even the six-year-old son, the youngest, is asked to collect five baskets of pigsty manure every day.

According to the editorial, the loan given to Su Yulan was not preferential treatment. "We are discussing how to distribute loans, not relief money," it said.

"The bank has to give priority to those who make greater contributions to the state, who are able to produce better economic results and pay back the loans on schedule. Su Yulan had the need and the potential to expand production."

Su Yulan's story is like that of thousands of peasants throughout China who suffered in the "Cultural Revolution."

The mother of six children, she was unable to work for the collective economy because she was in poor health and tied to the house. Her husband was the only bread-winner, earning 40 yuan a month at the commune veterinary station.

"I couldn't let the children continue to starve," she recalled. In 1974, she raised four sows and four sheep to breed animals for sale at the village fairs.

She was soon the target of a campaign to suppress domestic production by peasants, then branded as a serious danger to socialism for allegedly "generating capitalism."

She was brought to village meetings where people were made to criticize her for "deviating from the correct path of socialism."

Finally she sold the animals at a loss and the family got heavily in debt.

Su Yulan said: "When things began to change (after the downfall of the 'gang of four') I heard on the radio that domestic production is good for the rural economy and has nothing to do with capitalism, as long as no exploitation of others is involved."

"In 1978, I began raising pigs again. By the following year, I had raised 50."

"I don't know how it was reported to the authorities but one day some provincial and municipal leaders came to see me. They asked me how many more pigs I could raise and what problems I had. I said I needed money to expand the business."

A few days later, the local branch of the Agricultural Bank of China gave her a 6,000-yuan loan, interest free over a period of three years.

CSO: 4020

LIAONING

BRIEFS

MUNICIPAL GRAIN--Yingkou Municipality, Liaoning, reaped 2.28 billion jin of grain in 1980, a record. The figure was 4 million jin higher than that of 1979. In 1980 its per capita income from collective production was 162 yuan. [Shenyang Liaoning Provincial Service in Mandarin 2200 GMT 17 Jan 81 SK]

COUNTY GRAIN--By 14 January, Changtu County, one of marketable grain growing counties in Liaoning Province, sold 790 million jin of grain and soybeans to the state in 1980. This figure was 85 million jin higher than the 1979 figure. [Shenyang Liaoning Provincial Service in Mandarin 2200 GMT 17 Jan 81 SK]

TIELING PREFECTURE GRAIN OUTPUT--Tieling Prefecture, Liaoning Province, reaped 4.43 billion jin of grain in 1980, an increase of some 160 million jin over the 1979 figure. [Shenyang Liaoning Provincial Service in Mandarin 2200 GMT 15 Jan 81 SK]

CSO: 4007

COMMUNE MEMBERS' LIVING CONDITIONS INVESTIGATED

SK190617 Hohhot Nei Monggol Regional Service in Mandarin 1100 GMT 18 Jan 81

[Text] According to our sources, the regional statistical bureau made an overall investigation at the end of 1979 on the economic situation of 460 families in 46 communes' production teams in the rural areas of 15 banners and counties in the region. The investigation indicates that commune members' income in 1979 was much more than in 1978 as a consequence of implementing the party's economic policies for rural areas. Meanwhile, their household sideline production was well developed.

There were 2,657 persons in these 460 families. Their per capita income in 1979 was 155.8 yuan, of which, 83.5 yuan was from the collective distribution, an increase of 17.4 percent. Some 60.9 yuan was from household sideline production, an increase of 28.5 percent over 1978. All these figures bettered the records set since the inception of the cooperative movement. The 1979 increase was the greatest in recent years.

In the consumption sector, per capita grain consumption was 489 jin, an increase of 3.8 percent over 1978. Per capita nonstaple food consumption increased by a large margin. Per capita meat consumption was 21 jin.

As far as clothing and durables consumption are concerned, the consumption of chemical fiber cloth increased 53 percent, nylon consumption increased 51 percent, silk consumption increased 150 percent and the consumption of knitting wool and woolen sweaters and underwear increased 43 percent over that of 1978.

Bikes, sewing machines, radio and wristwatch purchases also increased markedly. According to the investigation, each 100 households had 57 bikes, 39 sewing machines, 31 radio sets and 68 clocks and watches.

Their housing conditions also improved greatly. Each household on average had 2.8 rooms, and each person on average had a room with a floor space of 7.6 square meters. However, attention should be paid to the low incomes of some commune members. Among these 460 households, there still were 42 households whose per capita net income was under 80 yuan, accounting for 9 percent. The major reason is that they failed to implement the party's economic policies in the rural areas.

LIVESTOCK BREEDING SITUATION INVESTIGATED

SK180655 Hohhot Nei Monggol Regional Service in Mandarin 1100 GMT 17 Jan 81

[Excerpts] According to our sources, in 1979 the regional statistical bureau made an investigation of the economic situation of 80 families engaged in livestock breeding in four livestock breeding banners. The investigation revealed that in pastoral areas, commune members' income in various fields has increased. They all keep livestock for personal needs, and their living conditions have improved. However, some commune members still have low incomes.

In 1979 the per capita income of these households was 257 yuan, an increase of 63 yuan over 1978. After deducting the expenses for developing household sideline production and taxes, per capita income was 239 yuan, an increase of 54 yuan and 29 percent over 1978.

Among these 80 households, 9 households' per capita income was over 400 yuan; 12 households' per capita income was over 300 yuan; 29 households, over 200 yuan; 24 households, over 100 yuan; and 16 households, less than 100 yuan.

In 1979 these 80 households had 1,200 head of livestock for personal needs, an increase of 517 head over 1978.

In 1979 per capita grain consumption was 308 jin, an increase of 3.7 percent over 1978. Per capita milk consumption was 136 jin, an increase of 2.8 times over 1978.

In the housing sector, the value of newly built houses increased from 300 yuan in 1978 to 3,402 yuan, an increase of 10.3 times over 1979.

CSO: 4007

NEI MONGGOL

BRIEFS

GRAIN PROCUREMENT--Hulin Buir League, Nei Monggol, overfulfilled the 1980 grain and oil-bearing seed procurement plans by 0.43 percent and 65 percent, respectively. Some 17 million jin of grain and 17 million jin of oil-bearing seeds were sold at negotiated prices in this league and procurement plans were fulfilled. [SK060804 Hohhot Nei Monggol Regional Service in Mandarin 1100 GMT 5 Jan 81 SK]

FARM OUTPUT--Bayannur League, Nei Monggol Autonomous Region, reaped a good harvest in 1980 despite natural disasters. The league's 1980 grain output was 190 million jin. Oil-bearing seed output was 110 million jin and sugarbeet output was 840 million jin, an increase of 340 million jin over the 1979 level. Owing to low temperatures and drought, over 1.8 million mu of land in the league suffered serious losses. But the league earnestly implemented the party's policies and worked diligently to reap a bumper harvest. The league's 1980 agricultural income was estimated at over 200 million yuan, averaging a rural per capita income of 110 yuan, an increase of 30 yuan over that of 1979. [SK151130 Hohhot Nei Monggol Regional Service in Mandarin 1100 GMT 12 Jan 81]

CSO: 4007

BRIEFS

EMERGENCY CIRCULAR--The Qinghai provincial public security, commerce and communications bureaus and the industry-commerce administrative bureaus issued a joint emergency circular 19 January, calling on those commune members fishing at Qinghai Lake to stop fishing. The circular states: All Fishermen must return to their own communes before 25 January. Checking stations will be established in various localities to confiscate all fish illegally caught, procured and transported according to the stipulations of the provincial people's government. All confiscated fish should be handled by the local industry-commerce administrative departments in a unified way. Eighty percent of the income should be handed over to the local authorities, and 20 percent should be distributed among those who have performed meritorious service in this regard. [SK221035 Xining Qinghai Provincial Service in Mandarin 2230 GMT 21 Jan 81]

CSO: 4007

BRIEFS

SHAANXI AGRICULTURE--Xian, 18 Jan (XINHUA)--In 1980, due to natural disasters and insect pests, Guanzhong region, which covers 41 counties and municipalities under Weinan, Xianyang, Xian, Baoji and Tongchuan prefectures and municipalities in Shaanxi Province, produced more than 3,596 million jin of summer grain, down 43 percent compared with 1979. Autumn grain output was reduced by 6.6 percent while cotton output dropped by 9.2 percent. By the end of November 1980, Wuyong County had procured 62,000 hogs, 4,000 more than 1979. Having experienced decrease in summer grain output last year, some 70 percent of the production teams in Weinan Prefecture began to practice production responsibility system and eventually increased autumn grain output by 12.33 percent. [Beijing XINHUA Domestic Service in Chinese 1153 GMT 18 Jan 81 GW]

SERICIN PRODUCTION--In 1980, cocoon production in Shaanxi increased by 26 percent over 1979, which was a bumper harvest. According to statistics, sericulture production in 1980 reached 58,000 dan, while output of large cocoons was 6,000 dan. By the end of November 1980, 55,800 dan of cocoons had been purchased throughout the province, overfulfilling the year's tasks of production and purchase. Ankang Prefecture is the main cocoon-producing area in Shaanxi. It alone produced 50,000 dan of cocoons in 1980. [HK100728 Xian Shaanxi Provincial Service in Mandarin 1100 GMT 2 Jan 81]

CSO: 4007

FARM MACHINERY BUREAU DIRECTORS CONFERENCE HELD

SKD21257 Jinan Shandong Provincial Service in Mandarin 2300 GMT 1 Jan 81

[Excerpts] According to our sources, the Shandong provincial conference of prefectural and municipal farm machinery bureau directors and managers of branches of farm machinery companies was recently concluded in Jinan.

The conference noted: Farm machinery work must suit the needs of the new rural situation in which all forms of production responsibility systems are being established and improved. We must do a better job in readjustments, strive to expand the scope of tillage and further improve management.

The conference held that over the past year farm mechanization has developed and progressed in our province in the course of readjustments. Along with last year's 25,000 new tractors, our province now has some 220,000 tractors. Some 4.4 million mu of wheatfields were machine-harvested in 1980, doubling the 1979 figure. About 80 percent of our province's arable lands were plowed by machinery and about 50 percent were sown by machinery. Over the past year all localities have also attended to increasing the number of farm machines and implements for subsidiary projects to enable farm machines to better satisfy the needs of agricultural production.

The conference noted: This spring we must combine the efforts of communes and brigades to strengthen and improve the production responsibility systems, do a good job in selecting pilot units to try out mechanized farming, strive to expand the scope of mechanized farming operations, further raise the farm machine utilization rate and the utilization of machines that are in good condition and decrease consumption and production costs.

CSO: 4007

ALKALINE SOIL IMPROVED, TURNED INTO GOOD FIELDS

Beijing RENMIN RIBAO in Chinese 7 Nov 80 p 2

[Article by Xinhua's correspondent Sun Mingzhen (1327 2494 2182): "Ling County Shows Good Results in Control of Saline-Alkali Waterlogged Lowlands"]

[Text] With the help and guidance of the Soil Fertility Institute of the Chinese Agricultural Academy, Ling County in Shandong Province began comprehensive control of waterlogged saline-alkali lowlands in 1975. More than 5000 mu of the 7000 mu of saline-alkali land used as an experimental area for the removal of alkalinity has now been turned into good fields, and the salt content of the remainder has been greatly reduced. Five brigades that have benefited have changed from consuming 100,000 jin of unified sales grain each year to contributing 200,000 jin of grain.

Ling County is located on a plain in northwestern Shandong, where the area of saline-alkali soil is large and production levels quite low. In 1975, the Soil Fertility Institute of the Chinese Agricultural Academy established an experimental area for the removal of alkali at the southern end of a lowlying area 70 li long and more than 20 li wide. This effort at control summarized the lessons of past experience. They used machinery to lift water for drainage and irrigation, constructing two large lifting and drainage stations beside the Majia River, and they collected at this lifting and drainage station underground water accumulated during the rainy season, and underground water that ordinarily oozed out of the ground, using machinery to pump it into the Majia River to be flushed away, thereby lowering the ground water table and carrying away the salt from the soil. During the dry season, the lifting and drainage station was used to pump water from the Majia River that had been diverted from the Yellow River for use in irrigation to relieve drought and to irrigate the fields to wash away salt. Within 4 years following construction of this drainage and irrigation system, the threat of a waterlogging disaster was eliminated; the underground water table was lowered 1 meter, and an average 420 jin per mu of salt was drained away. Along with the draining away of alkali to improve the soil, they took complementary agricultural steps and measures using plants to change the alkalinity to hasten the speed of alkali reduction.

BRIEFS

SHANDONG INCOME--Shandong Province reaped another bumper grain harvest in 1980. Although summer grain output declined as a result of natural adversities, the total annual grain output was second only to that of 1979. Cotton output was more than 200 percent higher than in 1979. About 10 million dan were procured. Peanut output was also an all-time high. Peanut output was 24 percent higher than in 1979. Following the development of agriculture, the total income of brigades and production teams throughout the province was 17.9 percent more than in 1979. Expenditures were 4 percent less. In the entire province, each commune member's income from collective production in 1980 is expected to be 100 yuan, 20 yuan more than in 1979. In Yantai Prefecture, it is expected to be 170 yuan and in the 4 prefectures in the northwestern areas it is 90 yuan, 10 and 80 percent, respectively, higher than in 1979. From 1956 to 1977, each commune member's income from collective production of the province increased only 6.7 yuan, while in 1979 it increased 22.9 yuan. [SK092304 Jinan Shandong Provincial Service in Mandarin 2300 GMT 8 Jan 81]

GRAIN CONTROL--Industry-commerce administrations, supply and marketing cooperatives, grain, transportation and railway departments in Shandong Province have cooperated in strengthening grain and oilseed market controls and cracking down on the illegal transportation and marketing of grain and oilseeds. According to reports from Jining, Yantai, Taian, Linyi and Qingdao prefectures and municipalities, they tracked down some 4 million jin of grain and oilseeds illegally transported or marketed over a period of 20 days. This has prevented the transportation of grain to other provinces. Thanks to market controls, Shandong Province overfulfilled its 1980 grain procurement task, fulfilled more than 95 percent of its 1980 peanut procurement task and purchased 200 million jin more grain at negotiated prices than in 1979. [SK191011 Jinan Shandong Provincial Service in Mandarin 2300 GMT 17 Jan 81]

COTTON OUTPUT--In 1979, Liaocheng Prefecture, Shandong, planted cotton on 1.8 million mu of farmland and total cotton output was 1.04 million dan, of which 1 million were marketed to the state. In 1980, total cotton output was 3.2 million dan with 3.15 million marketed to the state. The average distribution per commune member increased from 54 yuan in 1979 to 132 yuan. [SK121352 Jinan Shandong Provincial Service in Mandarin 2300 GMT 11 Jan 81]

GRAIN OUTPUT--Changle County, Shandong Province, reaped a bumper agricultural harvest in 1980. The grain output increased by 35.23 million jin and cotton output by 200 percent over the 1979 figures. Income gained from agricultural and sideline production was 18.48 million yuan. [Jinan Shandong Provincial Service in Mandarin 2300 GMT 14 Jan 81 SK]

SHANDONG ANIMAL HUSBANDRY--Jinan, 17 Jan (XINHUA)--Each head of pig purchased by the state from Shandong Province last year weighs an average of 224 jin, an increase of 19 jin over 1979. The increased portion of weight is equivalent to some 200 million jin of pork. As of late 1980, the total number of sheep, rabbits and domestic fowl also rose by more than 60 percent over 1979. In addition to the 40 billion jin of fodder grass provided by 22.9 million mu of hilly areas and grassland, the province is also able to produce some 700 million jin of food by extracting peanuts and cotton seed. Shandong has by now established beef producing bases in 12 counties in hilly and northern coastal areas, cattle farms in 12 counties in the Luxi plain, and sheep farms in 12 counties in eastern coastal areas. Commune households in 1980 raised 280,000 head of draft animals, 8 times more than 1979. [Beijing XINHUA Domestic Service in Chinese 0239 GMT 17 Jan 81 OW]

CSO: 4007

SHANGHAI

BRIEFS

ANTIFLOOD WORK MEETING--According to the Shanghai Municipal Weather Station, there will be excessive rainfall in spring and autumn this year. In order to make adequate preparations for flood, the municipal government called an anti-flood work meeting on 17 January. During the meeting, Vice Mayor Yang Di summed up last year's experience in preventing floods and mapped out the tasks for this year. Leading comrades of the municipal CCP Committee and municipal government presented awards to 21 advanced units in preventing floods last year. In his speech, Han Zheyi, deputy secretary of the municipal CCP Committee and vice mayor, called on all the participants to make sufficient preparations ideologically and organizationally. [Shanghai City Service in Mandarin 1130 GMT 17 Jan 81 OW]

CSO: 4007

BRIEFS

LINSEED AREA--Zuoyun, Youyu and Pinglu Counties in Shanxi Province are known as "the linseed country." The sown area here is nearly 50,000 mu accounting for more than 20 percent of the arable land in the three counties. [Taiyuan SHANXI NONGYE KEXUE (SHANXI AGRICULTURAL SCIENCES) in Chinese No 10, 20 Oct 80 p 19]

SHANXI AGRICULTURAL RESEARCH--The agricultural science and technology personnel in Shanxi have scored 12 outstanding achievements in research in agricultural science and technology. In cultivating new varieties of agricultural crops, 11 types of fine new seed strains have been discovered. These new varieties are strong in resisting plant diseases and can be easily adapted to the local conditions. In afforestation, the Shanxi Forestry Science Institute has, since 1980, imported 30 varieties of shrubs from home and abroad. In 1980, there were 30,000 heads of hybrid cattle in the province. [Taiyuan Shanxi Provincial Service in Mandarin 2300 GMT 2 Jan 81 HK]

SHANXI PORK PRODUCTION--From December 1980 to early January 1981, Shanxi Province supplied Heilongjiang, Liaoning, Nei Monggol, Guangxi and Yunnan with 6,160 dun of pork to meet consumers' needs for the forthcoming spring festival. As of the end of December 1980, the province had a total of 1.5 million hogs weighing over 150 jin each. [Beijing Domestic Service in Mandarin 0400 GMT 16 Jan 81 OW]

CSO: 4007

BRIEFS

SICHUAN WINTER CROPS--Chengdu, 9 Jan (XINHUA)--The rural areas of Sichuan Province have stepped up field management for the 30 million mu of wheat and 8.2 million mu of rapeseed they planted last year. Ditches in the wheat fields in eastern, south-eastern and central Sichuan, where the growth of wheat seedlings has been affected by rainy weather, are being deepened to lower the subsurface water level, and additional fertilizer is being applied to the wheat and rapeseed crops on the plains in western Sichuan where the growth of wheat and rapeseed has been uneven. [OW091345 Beijing XINHUA Domestic Service in Chinese 0149 GMT 9 Jan 81]

CSO: 4007

NEW RICE, CORN STRAINS BRED IN TIANJIN

Tianjin TIANJIN RIBAO in Chinese 14 Oct 80 p 1

[Article: "Tianjin Municipality Successfully Breeds New Varieties of Rice and Corn. Scientific Units Concerned Appraise and Confirm"]

[Text] The Scientific Research Results Appraisal Conference organized and convened by the Genetics Institute of the Chinese Academy of Sciences and the Tianjin Municipal Academy of Agricultural Sciences as mandated by the Municipal Science Commission, unanimously confirmed the successful breeding of new rice variety "Huayu No 1."

"Huayu No 1" new rice variety was bred in a fairly short time using the method of anther culturing through the close cooperation of the Genetics Institute of the Chinese Academy of Sciences, and the Paddy Rice Institute of the Tianjin Municipal Academy of Agricultural Sciences. The successful breeding of this new variety has opened a new path in paddy rice breeding techniques, and will have a definite effect both in China and abroad.

Production demonstrations, test plantings, and small area promotion of cultivation during the past 3 years have demonstrated that when grown in the saline-alkali soil of the Tianjin seacoast, this variety exhibited characteristics of tolerance of salt, resistance to drought, resistance to bacterial blight, and fair resistance to rice blast, is suited to growth in areas of from medium to medium-high fertility, and is capable of yields of around 1000 jin per mu. In the Beijing-Tianjin area, with a growing season of about 160 days, it would be planted mostly as a first rice crop. Under certain conditions, it might also be grown in a rotation of wheat and rice. The appraisal conference unanimously agreed to the promotion for cultivation of this new variety, "Huayu No 1." It pointed out at the same time that in order to prevent lodging and to control spread of rice blast, growing of this variety requires attention to water and fertilizer management.

A new corn variety, "Jinxia No 1," has been successfully bred. This was a new fruit of scientific research approved by the first appraisal conference organized and convened on 26 November by the Municipal Academy of Agricultural Sciences on a mandate from the Municipal Science Commission.

"Jinxia No 1" is a disease resistant, high output corn hybrid sown in summer, which the Plant Protection Institute of the Municipal Academy of Agricultural Sciences began to breed in 1976. Experimental demonstrations between 1977 and 1980 have shown that this variety has strong resistance to gray leaf spot, is of good quality, has high output, and has been bred using three matched lines. Under growing conditions of moderate and high fertility, yields amounted to from 670 to more than 750 jin per mu for an average increase of from 55 to 177 jin per mu over comparison variety "Jingzao No 7." It may become the superior variety of summer planted corn in the Tianjin area.

9432

CSO: 4007

TIANJIN

BRIEFS

TIANJIN COUNTY GRAIN PROCUREMENT--Baodi County, Tianjin Municipality, reaped a bumper harvest of grain, cotton and oil-bearing seeds in 1980. Grain output was 430 million jin, cotton some 480,000 jin and oil-bearing seeds some 4.38 million jin. [SK16085] Tianjin City Service in Mandarin 2330 GMT 15 Jan 81]

CSO: 4007

BRIEFS

XINJIANG AGRICULTURAL MEETING--The Xinjiang Regional Agricultural Commission recently sponsored a discussion meeting to analyze the situation of agricultural and pastoral production in the region. It was attended by leading cadres, advisers, experts and technicians of relevant departments. The meeting discussed suggestions and measures to further develop agricultural production in the region in 1981. Since winter, rainfall and snowfall have been less and temperatures have generally been higher than in previous years. Thus serious drought may occur in spring. The meeting also discussed how to prevent drought, insect pests and other problems. [Urumqi Xinjiang Regional Service in Mandarin 1620 GMT 10 Jan 81 OW]

DRAUGHTANIMAL MARKETING--Urumqi, 18 Jan (XINHUA)--A large number of horses, oxen and donkeys in Xinjiang have been delivered to the interior by the Xinjiang-Lanzhou railway for marketing since the end of 1979. Over 150 counties in 10 provinces and autonomous regions have bought more than 38,000 head of draught animals. In addition to horses and oxen, donkeys sell well. Some 15,000 donkeys have been sold to Henan, Liaoning, Ningxia and other provinces and autonomous regions. [Beijing XINHUA Domestic Service in Chinese 0115 GMT 18 Jan 81 OW]

ABNORMAL CLIMATE--Since the beginning of winter last year, Xinjiang has experienced a relatively high temperature and less snow. Winter in all places in Xinjiang set in about 10 days later than in previous years. Xinjiang has not experienced a single influx of cold air this winter. Based on the available meteorological data, the scientific knowledge popularization group of the Xinjiang Regional Meteorological Society predicted continuous warmth and lack of snow during the rest of this winter and called on all localities to make preparations against possible outbreak of insect pests and drought in spring so as to avoid serious losses in agricultural production. [Urumqi Xinjiang Regional Service in Mandarin 1300 GMT 18 Jan 81 OW]

RURAL WORK CONFERENCE--Municipalities and counties directly under Ili Kazak Autonomous Prefecture in Xinjiang recently held a rural work conference, stressing the importance of strengthening the party's leadership and paying keen attention to the political and ideological work in the rural areas. The conference pointed out that the fundamental task for the political and ideological work in the rural areas is to conduct the education on upholding the four fundamental principles and unity among the nationalities, socialist democracy and the legal system, patriotism, hard work and plain living, and on the party's workstyle and discipline. [OW200419 Urumqi Xinjiang Regional Service in Mandarin 1300 GMT 16 Jan 81]

SOIL SURVEYS- According to XINJIANG RIBAO, Xinjiang ranks first among the provinces and regions in northwestern China in conducting soil surveys. So far, soil surveys have been carried out in 34 counties, covering 36 million mu in area. Of this, 18 million mu is farmland, representing one half of all commune farmland in the autonomous region. [OW091345 Urumqi Xinjiang Regional Service in Mandarin 1300 GMT 17 Jan 81]

CSO: 4007

BRIEFS

YUNNAN WINE--Recently, the Yunnan Provincial People's Government issued a document which demanded that commerce departments at all levels unify production and whole-sale and retail selling of wine. The document pointed out that wineries throughout the province must deliver wine for sale in the tobacco, wine and confectionery companies, trade companies and nationality companies. In the countryside, wine should be sold in the supply and marketing cooperatives. The wineries are forbidden to sell directly. Other units are also not allowed to engage in such sales. All the wineries throughout the province must register again for approval. They must receive permits first before starting production. Unauthorized wineries must stop production. [Kunming Yunnan Provincial Service in Mandarin 1100 GMT 3 Jan 81 HK]

ANIMAL HUSBANDRY--In 1980, the total number of livestock in Yunnan reached 27 million compared with 1979. This was an increase of 90,000 heads of large livestock and 360,000 goats, the highest level ever recorded since 1965. Despite the occurrence of natural disasters in the first half of 1980, production of livestock still increased in the province during the same year. A total of 8,100 production teams in Yunnan have taken animal husbandry as their main production. At present, 1.23 million goats in the province are raised by private individuals, an increase of 23 percent over the end of 1980, accounting for 16.8 percent of the total number of goats. The privately raised large livestock also reached 510,000 heads, an increase of 134,000 heads over 1980, accounting for 7.8 percent of the total number of heads. [HK090804 Kunming Yunnan Provincial Service in Mandarin 1100 GMT 5 Jan 81]

CSO: 4007

PLANT PROTECTION COMPANIES HELP CONTROL PESTS, DISEASES

Beijing GUANMING RIBAO in Chinese 4 Nov 80 p 2

[Article by Zhou Shoujin (6650 134) 3866]: "Zhejiang Province Sets Up More Than 30 Plant Protection Companies in a Major Reform of Plant Protection Work")

[Excerpt] Eighteen counties in Zhejiang Province have set up more than 30 plant protection companies, contracting with them for disease and insect pest prevention and control work on rice and disease and insect pest control work on dryland grains, timber, melons and fruits, and other economic crops. Average cost for chemicals used by these plants protection companies and costs for the use of chemicals per 1000 jin of paddy were 40 percent lower than in most production teams, and only one-third the amount of labor was used.

There are prefecture operated, commune operated, brigade operated, and commune and brigade jointly operated plant protection companies, and there are also amalgamated companies for agriculture, industry, and commerce, all of which are enterprises responsible for their own profits and losses. They organize production in accordance with objective economic laws rather than through reliance on administrative fiat. In their contracting for responsibility to prevent diseases and control insect pests, they give extreme attention to improvements in their own methods of operation and management, increasing the level of scientific use of chemicals, and frequently proposing to production teams various requirements for comprehensive prevention and control in order to diminish the opportunities for diseases and insect pests to proliferate, thereby reducing damage from diseases and insect pests, and raising the scientific farming levels of product, on teams.

9412

CSO: 4007

HANGZHOU BAY FISHING INDUSTRY HARD HIT BY POLLUTED INDUSTRIAL WASTE WATER

Beijing GUANGMING RIBAO in Chinese 22 Oct 80 p 2

[Article by Shanghai Petrochemical Main Plant]

[Text] Comrade Editor: We--the Taihu Commune of Shengsi County, Zhejiang Province--are located in the entrance of Hangzhou Bay. This is a small island engaged primarily in sea fishing. Such economic fish as the mullet, the silvery pomfret, shark, white shrimp, yellow croaker, and jellyfish had always been plentiful. In recent years, however, fingerlings of mullet and yellow croaker are no longer to be seen and yields of silvery pomfret and shark have also dropped about 60 percent. The reduction of the yield and the quality of jellyfish are especially terrifying. In 1975, during one autumn flood season, the yield of jellyfish from the 200 nets of the commune was more than 2,800 dan. The yield has been less and less every year while the quality of the catch has become poorer. The autumn floods of last year brought only 600 dan. The cause is the industrial waste water coming from Shanghai and some factories of Zhejiang Province. The industrial waste water and oil discharged into the sea contain a much higher rate of toxic substances than the standard set by the state and they have killed various fingerlings. We are here to beseech you to help us appeal to the related departments of Shanghai, Zhejiang, et al to adopt measures to reduce or cease discharges of industrial waste water to the sea, otherwise the fishing industry of these Zhoushan Islands will be thoroughly destroyed. [signed] Taihu Commune Revolutionary Committee, Shengsi County, Zhejiang Province

Department of the Laboring Masses:

The letter written to your newspaper entitled "Serious damage to the fishing industry of our island by industrial waste water" has been forwarded to us by the Shanghai Municipal Committee of the Central Communist Party. We extend our profound sympathy to the fishing industry of Taihu Commune of Shengsi County, Zhejiang Province for the yield reduction.

The Zhoushan Islands of Hangzhou Bay form a region famous for fishery in China. As we understand the situation, the current pollution problem of Hangzhou Bay involves the following aspects: (1) The Qiantangjiang carries untreated waste water in large quantities discharged by factories of its banks. (2) the waste oil is discharged by the motorized boats and ships into Hangzhou Bay, especially by the fishing boats into the Zhoushan Fishing Ground when the marine products are being caught. (3) According to the Zhejiang Provincial Environmental Protection Office, the runoff oil discharged accidentally during demolishing of old used boats at Zhapu Ship Demolishing

Plant sometimes amounted to more than 30 tons per accident. (4) The Zhejiang Petroleum Refinery discharges 80,000 tons of treated waste water per day; the oil content of this waste water is being investigated. (5) Our plant treats 500,000 tons of industrial waste per day with 960,000 tons of clear water discharge. Under the condition of occasional accidents, some leaks may occur. (6) The City of Shanghai and the Chang Jiang brings over a large quantity of waste water. Due to the effects of the tide and currents, it flows into Hangzhou Bay along the northern part of the bay. (7) The agricultural drugs used in the fields in the valleys of Qiantangjiang, Yungjiang, and Caojing, et al within the Hangzhou Bay region are washed off into the bay.

In view of the above conditions, we suggest that the state's Environmental Protection Office and the states General Bureau of Marine Products should be in charge of organizing a joint survey by related units in Jiangsu and Zhejiang provinces and Shanghai City to exchange data and to proceed with joint environmental protection work so that scientific research work may be carried out to control pollution in the region of Hangzhou Bay to restore its ecological balance for the development of the fishing industry. Our plant is willing to join the efforts of surveying and pollution control and treatment and to contribute to the implementation thereof.

[signed] Shanghai Petrochemical Main Plant

6168

CSO: 5000

LABOR SHORTAGES IN COMMUNES DEBATED

Hangzhou ZHEJIANG RIBAO in Chinese 19 Nov 80 p 2

[Article: "How Can the Problem of Labor Export Be Satisfactorily Solved? Numerous Commune Members from Ganjing No 2 Brigade in Dongyang County Leave to Do Business While Labor Force Is Inadequate for Autumn Harvesting and Winter Planting; Brigade Leader Much Upset But Can Do Nothing"]

[Text] Editor's Note: Not all of the labor force in rural villages can be shackled to the land. People have come to realize this more and more, and many jurisdictions have made sensible arrangements for organizing part of their labor forces for export, achieving striking benefits as a result. However, recently a different tendency has cropped up in some places, namely large scale unchecked export of labor, which has impaired farm production. The key to the solution of this problem lies in better management of labor forces. But just how can this be done? How overall provisions can be made among various industries for the framing of comprehensive plans that take all factors into consideration is a problem that merits discussion and study by all.

Comrade Editor:

The autumn harvest and winter planting is a major concern in rural villages right now. But the work force in our brigade is insufficient this year. On several days, only seven or eight people were harvesting or planting in the entire brigade, and it was impossible to plant one mu in an entire day. Our brigade leader was so upset he did not know what to do.

Our brigade used to have a sufficient work force with some to spare. For the 93 mu of paddy fields in the brigade, there was a labor force of 53 persons able to do a full day or a half day's work. During the first half of the year, we organized a 17 person work force to do some construction work and take part in sideline production outside the brigade. Thus, without any impairment to grain production, economic income could be increased. But, at an early stage, another 11 workers took it upon themselves to leave farm production. Two of them went to work outside the brigade; six worked nearby on handicrafts and doing business; and three of them worked at home on sideline occupations. Thus the work force of the brigade was decreased by 28, or more than half the total. Most of the personnel who left were strong and

able-bodied, among them eight of the 14 full time males, leaving behind the old and the young to do the farm work. Now only 30-mu of the 60 mu of wheat and barley fields are farmed. I have made several efforts to get the work force under control and I have urged those who took it upon themselves to leave to return. But having said this many times, it is still like "pouring water over a duck's back," with nothing coming of it. I say that farming people should look after grain production first, but they say a lot of money can be earned and riches will come faster by going outside the brigade. I say that if farmers do not farm the fields, where will food come from? They say that so long as there is money in their pockets, there is no need to worry about everybody being warm and well fed. The marketplace is a large granary where it is easy to get whatever is needed. I think that to care only about earning money and not care about grain will never work, but I cannot think of anything to do. Will everybody please help me think of something that can be done.

Wu Xianwei [0702 0103 0143], production team leader, No 2 Production Team, Ganjing Brigade, Baiyun Commune, Dengyang County.

Export of labor is a road that has to be travelled for producing wealth.

During the past 2 years, the cadres in the Yeqlan Brigade of our commune have emancipated their thinking to permit labor to go outside the brigade to engage in sideline occupations with very good economic benefits accruing therefrom. During 1978, this brigade sent out 57 people who turned over to the collective more than 16,000 yuan of money earned from sideline occupations. In 1979, it sent out 80 people who turned over to the collective 25,000 yuan of money earned from sideline occupations. Of these sums, more than 3,900 yuan (or 7 percent of the total sum) was used to increase collective accumulation, and the remaining 38,500 yuan was distributed to all commune members as a bonus. This amounted to an average increase in income of 35 yuan for everyone in the brigade. In 1979, the No 6 Production Team exported 16 fully able and semi-able workers who turned over to the collective 5,600 yuan of sideline occupation earnings, which increased per capital income for the brigade by 43 yuan.

Does not the export of labor cause farmlands to go out of production? Looked at in terms of the actual situation at the Yeqlan Brigade, not only does this not happen, but collective production is even promoted. There is one mu of farmland per capita in this brigade, and during the past 2 years as commune members who stayed in the commune have seen an increase in collective income, their enthusiasm for labor has also increased. During the busy seasons in farming, virtually everybody reports for work, and collective farm work is completed with the quality assured, the amounts assured, and at the time assured. In 1979, throughout the entire brigade, per unit yields exceeded the 1 ton mark.

Chen Maonan [7115 5199 0589], Hangzhou Credit Cooperative, Yiwu County

For a period of time recently, another group of commune members from my commune have wanted to go outside the commune to work or engage in "small business." Another group left earlier, so should more of the work force now be "released" to go? Everytime this issue comes up, arguments are very heated.

I feel there has to be both "release" and "control," in a combination of "release" and "control." Neither unchecked "release" nor dogged "control" is desirable.

Take our Tangxia Commune as an example. There are 27,000 people in this commune and somewhat more than 16,800 mu of farmland, or an average of somewhat more than 0.6 mu of farmland per person. Many people crowd scant land, and a fully able-bodied worker can get only 150 workpoints or so a year. Assuming the value of each workpoint to be two yuan, an able-bodied person can make an income of only 300 yuan a year. In actual fact, it is only in an extremely small number of production teams that the value of each workpoint is 2 yuan or more. In most, they are only worth 1.40 to 1.70 yuan, and in the poorer ones only about 1 yuan. Obviously, a fully able-bodied worker makes little income from working in the fields. If all the work force is "held" in the brigade, it will be very difficult for commune members to become rich. It can be seen that "release" of a portion of the work force from the brigade is necessary if the peasants are to become wealthy. In this way, two birds may be killed with a single stone. Those going outside the brigade can increase earnings while those remaining in the brigade can accumulate more workpoints and get more benefits. In the past, the No. 6 Production Team of Nanzha Brigade was stifled with "control," and even old commune members more than 60 years of age were not permitted to work outside. There were plenty of people to do the farm work, but individual income for commune members was small! Everybody worked very hard all year long yet some commune members still went broke! Since a change to the common practice of "release" of labor to go elsewhere, the average monthly income of these commune members who labored year after year in the brigade has increased from somewhat more than 20 yuan to more than 40 yuan for an annual doubling. Hardship households are no longer in debt or spend beyond their means.

Will the "release" of labor to go outside brigades "release" other problems? Here we have the following several problems. First, too much of the work force has left some production teams, reaching as much as 75 percent of the total in some. Second is refusal to hand over accumulation funds. Third is concern only for the individual "getting rich," without caring for the welfare of the collective and refusing to "return to the ranks" during the busy seasons. The existence of these several problems is very much related to "release" without "control."

There must be both "release" and "control." But how to "control"? In addition to intensification of ideological work, some brigades did the following: First was to require that the work force return during very busy seasons, and to fine them 2 workpoints or 5 yuan for every day they failed to return. Second was to require that workers outside the brigade hand over accumulation funds to the brigade each month. Third was to require that workers going outside the brigade must first tender funds for grain without which they will not be issued any. I think these conditions are desirable.

Ye Lianping [0673 5328 1627], Tangxia Commune, Wenling County

The transportation of goods over long distances plays a definite role in linking up channels for the circulation of commodities and in enlivening the markets in cities and countryside. But greater control must be exercised over the long distance movement of goods. Commune members engaged in the transportation of goods for sale must pay attention to two points. The first is that they must cease their activity during the busy farming seasons; and the second is that they must have the agreement of their production teams and production brigade. Last October, at the busiest time during the harvest of the late rice crop, a production team in the Xinli Brigade of

Jiangnan Commune in our county, 50 commune members bought oranges and kumquats from elsewhere at 0.30 yuan per jin and transported them to Shanghai for sale at 0.60 yuan per jin. As a result, there was no one to harvest the late crop of rice, and this seriously impaired agricultural production.

Wang Zhenan [3769 6966 1344] and Xu Shuyao [1776 6615 1031]

Taizhou Prefecture has sufficient labor resources as well as numerous craftsmen. Formerly, under the influence of the ultra-left line, every time commune members went outside the brigade to engage in sideline production, this was invariably termed a "draining away of labor," and "practicing capitalism," so that commune members huddled "inside their shells and did what was expected," and everyone "shared poverty." Now numerous communes and brigades have liberalized policies to make the most of the advantages they enjoy in numbers making reasonable provisions for the work force by permitting excess workers to go elsewhere, and allowing commune members to act freely, each of them showing his ability to create more material wealth for society. For example, Taizhou had quite strong project construction forces. Last year, there were 257 commune and brigade project construction teams throughout the prefecture totaling more than 27,700 people of whom one-third went outside the brigade to contract for construction projects. Each person averaged an annual income of more than 1,000 yuan. The Xiage and Dongfanghong communes in Xianju County began in August last year to organize a total of three construction teams numbering 345 people to go to Yinchuan City in the Ningxia Autonomous District to contract construction of houses. They have already contracted to build more than 28,500 square meters of housing with an output value of 3.63 million yuan. By year's end, they will have a net income of 580,000 yuan, or an average of 1,700 yuan per person. The construction team has purchased motor vehicles, hoists, ramming machines, and vibrators as fixed assets worth more than 60,000 yuan.

We feel that a "draining away of labor" such as this should be advocated. Its advantages are: First that it makes the most of Taizhou Prefecture's advantage in having a large and skilled work force, finding an outlet for part of the excess labor, which helps the intensive operation of agriculture, industry, and sideline occupations. Second, it brings into play a large number of able craftsmen, allowing each to make fullest use of his talents, which benefits national construction of the four modernizations. Third, it appreciably increases the earnings of commune and brigade members, helping the peasants to become rich as quickly as possible. Problems are that communes and brigades must improve leadership so that the organization of the labor force for export is done in reasonable proportions overall, and without impairment to agricultural production, particularly during the very busy farming season. There must be proper control to assure the work force meets the needs of the front line in agricultural production.

Hu Zheqi [5170 0772 0796], Taizhou Prefecture Reporter Station, and Hong Jinfel [1161 6930 3110], Taizhou Prefecture CCP Committee Office.

8432

CSO: 4007

II. PUBLICATIONS

TABLE OF CONTENTS OF 'RURAL SCIENTIFIC EXPERIMENTS' No 8, 1980

Beijing NONGCUN KEXUE SHIYAN [RURAL SCIENTIFIC EXPERIMENTS] in
Chinese No 8, 1980 p 32

[Text]

Table of Contents

Agriculture, Forestry, Animal Husbandry, Side-Line Occupations
and Fishery

Pay Attention to Wild Ducks Ma Hongzhi [7456 3163 1807].....	3
The Storage of Hemp Xiao Zhiping [5135 0037 1627] Hemp Research Institute, China College of Agriculture.....	4
Keeping Fruits and Vegetables Fresh Teng Shouyi [4696 1343 5030] Office of Rural Sideline Occupations, Liaoning Supply and Marketing Corporation.....	6
The Use of Illumination in Storing Seed Potatoes Fan Ping [5400 1627].....	7
On Harmonizing the Contradiction Between Chemical Controls and Biological Controls Zhao Jingzhao [6392 2417 6856] Biology Department, Wuhan Teachers College.....	12
Defeating the "Fiery Dragon" of the Cotton Field--Scolothrips takahashii Priesner Wang Wenyuan [3076 2429 0337] and Xiong Jianshe [3574 1696 6080] Agriculture Branch Station, Hubei Tianmen County Yanglin Commune.....	12
Swine Smallpox Xie Zhongquan [6200 0112 2938].....	14
Water Bamboo Gu Weidong [7357 5898 2639].....	19

How to Raise Mink	
Liu Yuanfu [0491 0337 1798] Local Products Corporation, Jian County, Hebei.....	26
Making Handicraft Products of Lobster Shells	
Jiang Hang [3068 5300] Shanghai Water Products Institute.....	28
Uric Acid and Urea	
Pang Zhishen [7894 1807 3947].....	28
Eliminating Weeds Produces Abundant Harvests.....	30
Agricultural Mechanization	
Spray Irrigation of Tea Plantations	
Feng Guangzhi [7458 1684 1807].....	1
A Helping Hand in Raising Fish--Shellfishing with Suction	
Ding Yongliang [0002 3057 5328].....	27
Searching Out Potential Oil Savings	
Dong Yimin [5516 0001 3046].....	31
Medical Health Knowledge	
"666" and Environmental Pollution	
Cai Shiyue [5591 1102 1878] China Environmental Science Institute.....	8
The Flying "Pharmacist"--More Discussion of Bees and Human Health	
Pang Zhu [2075 2691] Workers Hospital, Hubei Salt Bureau.....	10
An Easy Method for Purifying Drinking-Water Bottles	
Jiang Xingjin [5592 5281 6930].....	20
New Achievements with Aniseed	
Ke Mingqing [2688 6900 3237].....	23
Basic Knowledge	
The Contributions of Indicator Plants	
Zhao Suyun [7458 1684 1807].....	1
Ennobling the Pine Tree	
Fan Liangzhi [5400 5328 2535].....	8
Why Raindrops are Especially Big in Summer	
Ye Nao [0396 2321].....	9

Do Shrimp Always Swim Backwards? Yu Junlin [0151 6511 2651], Wang Meitong [3769 2734 0681] and Liao Lixin [1675 4539 2450] Biology Department, Jiangsu University.....	11
Which Stone Steps are Dry? Yang Wanqing [2799 5502 7230].....	15
A New Chapter in Organ Transplants--The First Successful Brain Transplants Compiled by Zhang Shiqi [1728 1102 3823].....	15
At the Tree's "Representatives Congress".....	16
Research on Flies Wei Yuqi [7614 3768 3823].....	18
Science and Life	
Don't Pair Used Batteries with New Ma Hongwen [7456 3163 2429].....	13
How to Create Battlefield Effects Zu Shaoxian [4371 4801 0341] Beijing Movie Studio.....	21
The Secret for Exploding an Automobile Zu Shaoxian [4731 4801 0341] Beijing Movie Studio.....	21
Building Problem-Free Toilets in Cold Areas Zhou Zhizhong [0719 1807 0022] The Air Force Environmental Protection Office, Beijing Command.....	22
The World of Knowledge	
"Living Radar"--the Elephant Trunk Fish Zhai Bian [5049 6708].....	24
The Birthwort Hidden Leaf Fly Zhi Zhi [2784 1807].....	24
The Primitive Monkeys of South America Li Wen [3810 2429].....	24
The Dust-Spraying Snake Lives up to its Name.....	24
Science and Technology News	
Bionic Compound Pesticides from JIANGSU AGRICULTURAL TECHNOLOGY.....	25
Heaven's Inexhaustible Source of Energy Ying Jie [2019 2638].....	25

A New Method for Storing Bananas
Xiao Ye [2556 0673].....25

Inducing Early Sprouting of Weed Seeds
Zhang Pingyuan [1728 1627 6678].....25

Front Cover	Pulling Weeds
Inside Front	The Herbicide Lasso
Inside Back	The Herbicide Avadex
Back Cover	The Herbicide Machete

11582
C30: 4007

Plant Protection

AUTHOR: FENG Chongchuan [7458 1504 1557]
ZHU Xiangsan [2612 6272 1472]

ORG: Both of Shaanxi Provincial Institute of Plant Protection

TITLE: "Research on the Method of Comprehensive Analysis of Meteorological Factors for Forecasting Yellow Dwarf Disease of Wheat"

SOURCE: Tianjin ZHIWU BAOHU [PLANT PROTECTION] in Chinese No 1, 8 Feb 80 pp 1-5

ABSTRACT: Yellow dwarf is a major disease of wheat in North China. Based upon the data concerning its genesis and prevalence in Guansheng District since 1964, the authors discuss the theory and the method of forecasting its occurrence. In view of the fact that the major insect vector for this disease in the province of Shaanxi is *Schizaphis graminum* (Rond), many factors, such as crop arrangement, available host weeds, biological natural enemies, the temperature and humidity, etc. affecting the quantity of this pest also determine the prevalence of this disease. Surveys indicate that systems of crop rotation and arrangement and the distribution of weeds in the areas under consideration are relatively stable, while the effect of meteorological factors on the quantity of the vector and the intensity of the disease is demonstratively obvious. Details of the meteorological analysis method are explained.

AUTHOR: CHEN Dunge [7115 2415 1795]
YANG Fangji [7122 6078 3381]

ORG: Peiling School of Agriculture, Sichuan Province

TITLE: "Forecasting the Peak of Scab of Wheat Studied"

SOURCE: Tianjin ZHIWU BAOHU [PLANT PROTECTION] in Chinese No 1, 8 Feb 80 pp 5-9

ABSTRACT: Scab during the heading stage of wheat is one of the major diseases of wheat in Peiling District, with increasingly higher rate of incidence and heavier damages in the last few years. The yield reduction is estimated at 23.3 percent per mu due to this disease. For the purpose of providing basis for forecasting the peak stage of the disease, plots were established by the school to study the major factors influencing the severity of this disease, including the blooming time of the wheat, the quantity of pathogens in the rice stubble left in the field, the varying contents of spores in the air, the time of the onset of the disease, and the effects of the disease on the wheat. The observed data are compared and reported in the paper.

AUTHOR: WU Tieguang [0702 6993 0342]
WANG Qingrui [3769 1987 3843]

ORG: WU of Kailu County Agricultural Technology and Plant Protection Station;
WANG of Kailu County Dayushu Commune Agricultural Station

TITLE: "A Study on the Principle of Occurrence of Wheat Root Bug and Its Prevention and Control"

SOURCE: Tianjin ZHIWU BAOHU [PLANT PROTECTION] in Chinese No 1, 8 Feb 80 pp 18-19

ABSTRACT: Kailu County is located in the western part of Zhelin League of Nei Menggol Autonomous Region, on the alluvial plain of Liaohe. In the past, wheat root bug occurred occasionally, the damage was mild, and not much attention was given to it. In 1976, wheat root bug (*Stenodorus flavidus* Signoret) occurred in a large scale in a 3500 mu spread of Dayushu Commune, with an insect density of 360-2266 bugs per m². Large areas of gaoliang [grain sorghum] turned yellow and many died. A project was thus launched to breed this species for close scrutiny of its major life habits, characteristics of distribution, and the vertical movement in the soil. Experiments with dimethoate, DDVP, calcium phosphate, Dipterex, etc. for its prevention and control were also carried out. This paper is a brief report of the preliminary results of these studies in the past 3 years.

AUTHOR: YUAN Shoukang [7086 1108 1660]
FU Qiaofang [0265 4428 5302]

ORG: Both of Hebei Provincial Institute of Plant Protection and Farm Fertilizer

TITLE: "How to Apply Drugs to Prevent Wheat Rust?"

SOURCE: Tianjin ZHIWU BAOHU [PLANT PROTECTION] in Chinese No 1, 8 Feb 80 pp 20-21

ABSTRACT: Selecting local breeds of superior rust resistance is the basic measure for preventing rust and guaranteeing stable yield of wheat and the use of drugs is an effective auxiliary measure. In drug application, the authors believe that in order to obtain the goal of high economic efficiency, a truly effective drug should be selected and the conditions of its application mastered, there should be a plan for the timely application of that drug, the spraying must be thorough, and the drug and the spraying machinery must be used on the high yield fields of wheat cultivars sensitive to rust before other fields in order to achieve maximum economic efficiency. Details of these experiences of the authors are discussed in the paper.

AUTHOR: SUN Pinxian [127 0756 6343]

ORG: Lishui County Center of Agricultural Sciences, Zhejiang Province

TITLE: "Investigation of the Suitable Time for One Application of Furadan in the Root Region for Continuous Prevention and Control of 2-4 Generations of Brown Leafhopper Feeding on Rice"

SOURCE: Tianjin ZHIWU BAOHU [PLANT PROTECTION] in Chinese No 1, 8 Feb 80 pp 25,17

ABSTRACT: Compared with other common methods currently in use, the internal absorption drug, Furadantin, applied in the root region has many advantages in preventing and controlling several agricultural pests. The drug is mixed with soil to form pellets to be applied near the root of the plants so that the drug will be absorbed by the root system and transferred to various parts of the plant. For this reason, a certain time is required before the drug reaches the leaf sheath where the brown leafhopper is feeding. This paper reports an experiment designed to determine the suitable time to apply the drug for the purpose of producing effective and continuous control of brown leafhoppers through 2 to 4 generations of the pest. In the region of Lishui County, the optimal effect is found to be the period between 30 to 45 days after the drug is applied and the best time to apply the drug appears to be 22 Aug for it to reach the optimal effectiveness during the period from 22 Sep to 7 Oct which is also the peak of the nymph stage of the 3rd and the incubation stage of the 4th generations in that county.

AUTHOR: SHANG Hongsheng [0794 7703 3932]

ORG: Department of Plant Protection, Northwest College of Agriculture

TITLE: "Genesis, Prevention, and Control of Wheat Snowy Mildew"

SOURCE: Tianjin ZHIWU BAOHU [PLANT PROTECTION] in Chinese No 2, 8 Apr 80 pp 3-6

ABSTRACT: Wheat snowy mildew (*Fusarium nivale*) was first discovered in Wugong of Shaanxi Province in 1961. Now, it occurs in all provinces of the Northwest. It was reported in foreign countries in 1972 as well. This is an abrupt type of disease and can cause the entire wheat plant to wither and rot. According to test results in Gaoling County, if only leaf spots are detected, the test weight of the wheat grain may be reduced 12-13 percent. This paper reports the diagnosis, infection cycles, factors influencing its occurrence, and methods of its prevention and control. Drawings depicting the symptoms of infected wheat leaves and the spores of the pathogens are included.

AUTHOR: None

OFF: Health, Medicine and Pest Survey and Report Station, Wujin County, Jiangsu Province

TITLE: "Principle of Management, Prevention, and Control of Thrips during the Seedling Stage of Paddy Rice"

SOURCE: Tianjin ZHONG GUO [PLANT PROTECTION] in Chinese No 2, 8 Apr 60 pp 7-9

ABSTRACT: In Wujin County, rice thrips (*Thrips oryzae* Wilson) began to appear in 1961 and the damages were rather scattered. The infestation began to become more serious after 1969 as the acreage of dual and triple crops was gradually enlarged. Even hybrid rice was extended in the entire county in 1976, this pest became an obstacle. Now, it has become the big problem of hybrid rice in the seedling and tillering stages. This paper reports observations of the life history of this pest, the suitable time of its control, and the methods and the strategy of controlling it with drugs.

AUTHOR: Wei Zhenzhen [1930-1998]
JIANG Zhenzhen [1930-1998]

OFF: Wei of Kunming Municipal Institute of Agriculture; JIANG of Changping Farm of Kunming City

TITLE: "Elimination of the Pontederiac Weed, Yanchibai, in the Rice Paddy"

SOURCE: Tianjin ZHONG GUO [PLANT PROTECTION] in Chinese No 2, 8 Apr 60 p 76

ABSTRACT: In the rice paddy, Yanchibai [*Pontederaca distachya*] is a fast growing pontederiac weed. The authors carried out experiments with various herbicides to eliminate this weed from rice paddy in Gaohe Farm of Mengzi County, Yunnan Province. It is found that either one of the 2 types herbicides, Roundup or Diapason, may be mixed with soil and scattered in the paddy when a shallow layer of water (0.5-1 cm in depth) is maintained to eliminate more than 90 percent of this weed while the rice plants will remain safe from the herbicide.

AUTHOR: ZHANG Shixin [1758 4258 2450]
ZHOU Guishen [0719 2710 3791]
SHU Xiushen [5286 4423 3791]

ORG: All of Plant Protection Center of Beijing Municipal Academy of Agriculture

TITLE: "A Study on the Seedling Stage Method of Identifying Resistance to Wheat Buggy Stunting Disease"

SOURCE: Tianjin ZHIMU BAOHU [PLANT PROTECTION] in Chinese No 2, 8 Apr 80 pp 29-30

ABSTRACT: Buggy stunting is an important disease of wheat in North China. For the purpose of selective use of resistant varieties, a method must be found to identify the resistant plants during the seedling stage. The authors experimented with the method of exposing seedlings to the virus-carrying gray planthopper, inoculating seedlings of different ages with the virus, counting the number of days between repeated inoculations, examining seedlings for the disease allowing different number of days for incubation, and using different methods of inoculation. Disease resistant seedlings may be identified with any one or all the above methods.

AUTHOR: LI Xiping [2621 1585 1627]

ORG: Suzhou District Center of Agriculture, Jiangsu Province

TITLE: "Experiment on the Effect of Pyrididine-oxygen-phosphate On Rice Pests"

SOURCE: Tianjin ZHIMU BAOHU [PLANT PROTECTION] in Chinese No 3, 8 Jun 80 pp 11-13

ABSTRACT: Pyrididine-oxygen-phosphate is a phosphor-containing organic insecticide synthesized by Shenyang Academy of Chemical Engineering. It is reported to be a broadspectrum insecticide with definite internal absorption and infiltration action and relatively low toxicity to men and animals. For the purpose of clarifying its effects on such rice pests as rice leafhopper, *Nilaparvata lugens*, leaf roller, thrips, etc., the author and colleagues carried out indoor, pot, and small plot experiments and obtained very positive results. Methods and procedures of these experiments are reported.

AUTHOR: HUANG Jinxing [7806 6855 2502]
XIAO Biyu [5135 4310 3768]
ZHAN Jianjiao [0594 9478 1293]

ORG: All of Jiayang District Center of Agriculture, Fujian Province

TITLE: "A Study on Ragged Stunt"

SOURCE: Tianjin ZHIWU BAOHU [PLANT PROTECTION] in Chinese No 4, 8 Aug 80 pp 2-4

ABSTRACT: Rice ragged stunt is a new rice disease discovered and reported by M.S. Tirona of Cotabato of the Philippines in Jan 77 and was officially named as such at the National Rice Virus Disease Research Conference in Jan 80. Toward the end of Aug 79, the authors discovered 4 stunted and abnormal rice plants at the center. Preliminary investigation revealed that these plants were infected by a virus, with symptoms and infection spreading characteristics identical to the ragged stunt. A systematic observation of pot cultivated diseased plants, a biological identification of the plant virus, and a survey of the condition of damage from this virus disease in the rice paddies are reported. Two photos of diseased plants are presented.

AUTHOR: SHOU Zhangbei [7445 4545 0554]

ORG: Linzhou District Center of Agriculture, Hunan Province

TITLE: "A Study on the Sources of Brown Planthoppers in Linzhou District"

SOURCE: Tianjin ZHIWU BAOHU [PLANT PROTECTION] in Chinese No 4, 8 Aug 80 pp 4-7

ABSTRACT: Brown planthopper is a major pest of rice in Linzhou District. In 1958, Hunan Academy of Agriculture reported that this pest overwintering as eggs in weeds. In 1979, CHENG Xianlan [4453 6667 1628] et al reported that the northern limit of overwintering of this pest is the isotherm of 12°C average temperature in January, and that the pest cannot overwinter north of 25° N.lat. where there is no surviving regenerated rice plants and where, after the winter, the pests come from the south. Linzhou District is located at 25-26° N.lat. The subject of whether it overwinters locally or whether it flies over from the south after the winter has been extensively studied by the author and colleagues since 1975. This paper reports various aspects of this extensive study which has provided direct evidences to prove that pests of the species, damaging Linzhou District, migrate from outside the district after the winter.

AUTHOR: None

ORG: Guangxi Yongfu County Disease and Pest Survey and Report Station

TITLE: "Principle of Occurrence of Brown Rice Planthopper and Pre-estimating and Forecasting the Time of Its occurrence"

SOURCE: Tianjin ZHIWU BAOHU [PLANT PROTECTION] in Chinese No 4, 8 Aug 80 pp 7-11

ABSTRACT: In the recent decade, brown rice planthoppers (*Nilaparvata lugens* Stål) have become a regular pest of northern Guangxi. For several years, on the basis of a preliminary understanding of the principle of seasonal migration of this species of pests in the region of Yongfu County, a study has been carried out to observe the number of generations of this pest in a year's time and the principle of its increase and decline in the rice paddies and with the attraction of the black light. On the basis of the observed data, a technique was formulated to predict and forecast various peaks of occurrence of this pest during the growth and development periods of early and late rice crops for the purpose of planning its timely prevention and control.

AUTHOR: XIONG Fucheng [3574, 6225 2052]

ORG: Cangshajipu District Agricultural Technology Station, Yiyang County, Hunan Province

TITLE: "Experimental Prevention and Control of Black-tailed Rice Leafhopper With Furadantin"

SOURCE: Tianjin ZHIMU BAOHU [PLANT PROTECTION] in Chinese No 4, 6 Aug 80 pp 19-20

ABSTRACT: Black-tailed leafhopper is the important vector of yellow dwarf and ordinary dwarf diseases of rice in Hunan Province, amounting to a grave threat to early and late rice crops, especially the latter. In order to prevent their abrupt occurrence, the paddies generally must be applied with drugs every 4-5 days. For the purpose of searching for a more efficient measure to control these pests, the author and colleagues carried out experiments with Furadantin. The 2 methods of application of the drug were found to be both effective for controlling these pests. Details of the experiments are reported.

AUTHOR: None

ORG: Xuzhou District Center of Agriculture, Jiangsu Province

TITLE: "Observation of Rice Leafroller Resistance of Several Breeds of Rice"

SOURCE: Tianjin ZHIMU BAOHU [PLANT PROTECTION] in Chinese No 4, 6 Aug 80 pp 20-21

ABSTRACT: Rice leafroller feeds on many plants and has been reported to complete its development on 25 varieties of plants, but certain breeds of rice remain its favorite. Many papers have suggested that the extension of some varieties has been the important reason for the increase of damage from this pest. In some especially bad years, the extent of damage has also been observed to vary with the breed of rice. For the purpose of finding the possibility of selecting resistant varieties as part of a comprehensive preventive measure, various studies were carried out at the center. Ten varieties were found to have relatively good resistance.

AUTHOR: ZHENG Jinyuan [6774 2516 0337]

ORG: Jiaxing District Agricultural Technology Center, Zhejiang Province

TITLE: "Technique of Applying Chemicals for Elimination of Late Rice Pestiferous Weed, Yansicai"

SOURCE: Tianjin ZHIMU BAOHU [PLANT PROTECTION] in Chinese No 4, 6 Aug 80 pp 22-23

ABSTRACT: Since 1973, the author and colleagues have adopted various ways and ratios of mixing herbicides to control the weed, Yansicai (*Potamogeton distinctus* A. Benn.) in the rice paddies without affecting the growth of rice plants. Problems concerning the method of applying the chemical mixtures, concerning the selective use of 3 different mixtures, concerning the time of drug application to guarantee the safety of rice plants, and concerning the effect of yield increase for the rice after the application of herbicides are discussed, based upon the experience gained from these years of practice.

AUTHOR: HUANG Ying [7806 4134]

ORG: Plant Protection Office, Institute of Sugar Cane and Flax, Fujian Academy of Agricultural Sciences

TITLE: "Preliminary Report of Experimental Comprehensive Prevention and Control of Major Sugar Cane Pests"

SOURCE: Tianjin ZHIMU BAOHU [PLANT PROTECTION] in Chinese No 4, 6 Aug 80 pp 27-30

ABSTRACT: The major sugar cane producing areas of Fujian Province are in the subtropical region with warm temperature and plenty of rainfall. The cropping systems are rather complex and numerous types of pest occur. The tall and dense sugar canes make it necessary to apply a large quantity of drugs. The cost of pest control is high and the objective difficult to obtain. This paper reports studies on comprehensive control of a dozen or so major pests with selection of pest resistant breeds, disinfection of seedlings, and application of one of 9 different pesticides, carried out by the office from 1975 to 1977. The use of internal absorption drug and fumigation to exterminate minor pests, including aphids and bugs is also reported.

AUTHOR: LI Fuchun [2621 4395 2504]

ORG: Yueyang District School of Agriculture, Hunan Province

TITLE: "Natural Enemy of Rice Leafhopper--Complexonermis sp."

SOURCE: Tianjin ZHIWU BAOHU [PLANT PROTECTION] in Chinese No 5, 8 Oct 80 pp 10-11

ABSTRACT: In China and abroad, a great deal of attention is now given to the use of parasitic nematodes to exterminate farm pests. In 1976, the author and colleagues discovered a large scale infestation of nematodes in leafhoppers, with the parasitism rate as high as 93 percent. Further investigation revealed the nematodes to be Complexonermis sp. belonging to the Family Mermithidae. This species was found to be able to infest several pests of rice very fast. The morphology and life habit of this parasite are described. The occurrence of this parasite is related to the environment of the rice paddies. Its incidence is higher when there are more rainy days in Aug and Sep and when the soil is fertile with a pH at 5.5-7.5. Early sunning of the paddy to cause the soil to form a crust is not favorable for the growth of the nematodes. Conditions of nematode parasitism of leafhoppers in paddies of different locations are compared.

AUTHOR: XIN Huipu [6580 1920 2528]

ORG: Heilongjiang 81 University of Agriculture and Reclamation

TITLE: "Experiment With Mixing Drugs in Seeds for Preventing Wheat Root Rot and Protecting Seedlings"

SOURCE: Tianjin ZHIWU BAOHU [PLANT PROTECTION] in Chinese No 5, 8 Oct 80 pp 16-18

ABSTRACT: Wheat root rot, Helminthosporium sativum P.K. et B, occurs mainly in the Northeast, North China, the Northwest, and Nei Monggol. When the infested seeds are planted, seedlings are weak and many die. In the past, drugs containing mercury were regularly used to mix with seeds to control this disease. Since these drugs were banned, several substitutes were tried and found to be ineffective. During the years from 1972 to 1979, the author and colleagues carried out experiments with more than 20 drugs to determine their varying degrees of effectiveness in controlling root rot of wheat. Results of indoor and field tests are reported.

AUTHOR: None

ORG: Agricultural Antibiotics Research Office, Central China College of Agriculture

TITLE: "Experimental Prevention and Control of Sclerotium Blight of Rice With Nongkang 5102"

SOURCE: Tianjin ZHIWU BAOHU [PLANT PROTECTION] in Chinese No 5, 8 Oct 80 pp 18-20

ABSTRACT: Sclerotium blight (*Helminthosorium sigmoideum* cavara) is a common disease of rice the world over. In China, it may be observed in all major rice producing areas south of the Yellow River and in some areas it has become the major disease. Early, intermediate, and late varieties may all be afflicted in all periods of growth and development but the damage to late rice is the most severe with the rate of loss reaching 10-50 percent. Nongkang 5102 is an antibiotic (*Streptomyces hygroscopicus* var. *yingohengensis* Yan et Ruan n. var.) having demonstrated effect of controlling sheath and culm blight of rice. This paper reports experiments of several years to test its effect on controlling sclerotium blight. In field tests, spraying with this antibiotic in a density of 50 units was found to be definitely effective for about 28 days. In laboratory tests, the antibiotic was not found to have internal absorbent characteristic.

AUTHOR: WANG Jinsheng [3769 6855 3932]

ORG: Plant Protection Department, Nanjing College of Agriculture

TITLE: "A Discussion of Several Problems Concerning the Genesis of Rice Mildew and Aspects of Its Research"

SOURCE: Tianjin ZHIWU BAOHU [PLANT PROTECTION] in Chinese No 5, 8 Oct 80 pp 33-36

ABSTRACT: The rice mildew, *Phytophthora fragariae* var. *oryzo-bladi* Wang et Lu, is a new disease of rice seedlings, reported and named in the past 2 years (WEISHENG-WU XUEBAO, 1978.) Supported by considerable research data, the author presents in the paper his opinions on the problems of (1) the origin of occurrence of this disease; (2) the identification of its pathogen and its morphological observations; (3) the genetic principle of the disease; (4) its prevention and control. Photos of rice seedlings demonstrating symptoms of this disease and of spores of the pathogen are reproduced and included in the paper.

6248

QSO: 4009

END

END OF

FICHE

DATE FILMED

9 Feb. 1981

